OKI®

Executive Series™ 1220n

User's Guide: Mac

Oki, Network Solutions for a Global Society

59355801

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 As an ENERGY STAR® Program Participant, the manufacturer has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

This product complies with the requirements of the Council Directives 89/336/EEC (EMC) and 73/23/EEC (LVD) as amended where applicable on the approximation of the laws of the member states relating to electromagnetic compatibility and low voltage.

Contents

Introduction

Your new printer is designed with advanced features to give you clear, vibrant color printing and crisp black and white pages at high speed on a range of print media.

Features:

• Up to 12 pages per minute in full color.

• Up to 20 pages per minute in black and white.

• 600 dpi (dots per inch) print resolution.

• Single Pass Color Digital LED technology.

• 10 Base-T and 100 Base-TX network connection.

• Secure Print feature for printing confidential documents over the network

• Proof and Print feature for Mac 9.04 to 9.4, which allows you to proof out one copy of your document before printing multiple copies. If the proof is okay, you can print the balance of the copies immediately without having to reprocess the document.

Options:

• Duplex Unit for automatic two-sided printing: P/N 42158401—see page 154.

• Additional Memory—see page 152.

  – 64 MB (P/N 70043001)
  – 128 MB (P/N 70043101)
  – 256 MB (P/N 70043201).

• Internal 10 GB Hard Disk Drive for storage of overlays, macros and downloadable fonts, etc.: P/N 70043501—see page 155.

• Second Paper Tray, capacity 530 sheets 20-lb. paper: P/N 42158501—see page 153.

Printer Overview

Front View
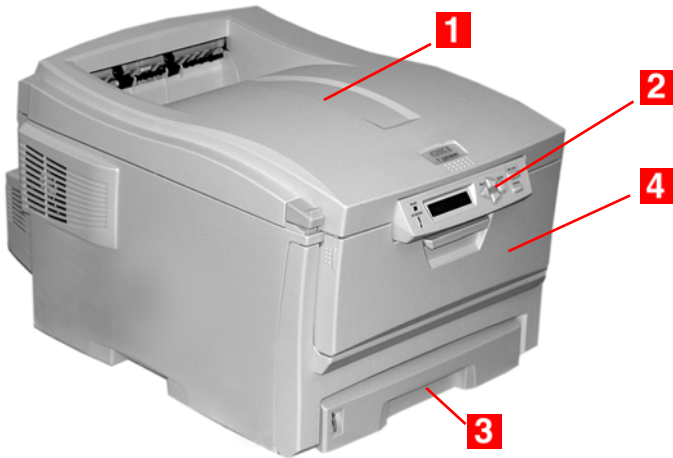
1 **Output Stacker, face down**

Standard printed copy delivery point. Holds up to 250 sheets of 20-lb. US Bond (75 g/m²) paper.

2 **Operator Panel**

Menu driven operator controls and LCD display panel (can be changed to show different languages: see page 10).

3 **PaperTray**

Standard blank paper tray. Holds up to 300 sheets of 20-lb. US Bond (75 g/m²) paper.

4 **Multi-Purpose Tray**

Used for feeding heavier paper stocks, envelopes and other special media. Also for manual feeding of single sheets when required.

Rear View
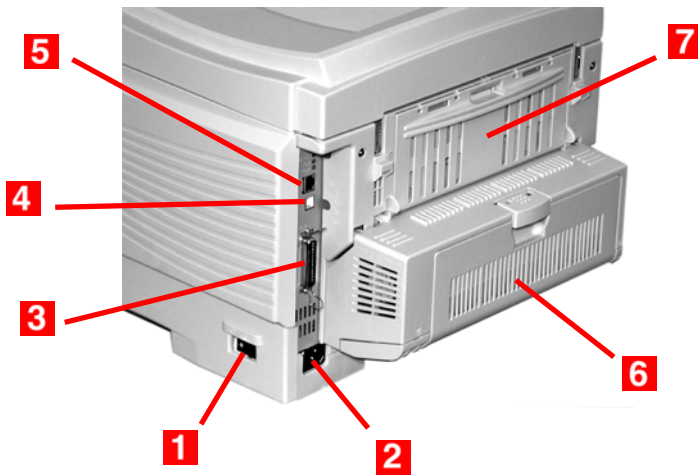
1 **On/Off Switch**

2 **Socket for Power Cord**

3 **Parallel Interface (not used for Mac)**

4 **USB Interface**

5 **Network Interface**

6 *Optional* **Duplex Unit**

7 **Rear Stacker** (face up), Capacity 100 sheets 20-lb. US Bond (75 g/m²) paper

When the rear paper stacker is folded down, paper exits the printer through the rear of the printer and is stacked here face up. This is mainly used for heavy print media. When used in conjunction with the Multi-Purpose Tray, the paper path through the printer is essentially straight. This avoids bending the paper around curves in the paper path and makes paper feeding more reliable.

Notes, Cautions, etc.

NOTE

A note appears like this. A note provides additional information to supplement the main text which helps you to use and understand the product.

CAUTION!

A caution appears like this. A caution provides additional information which, if ignored, may result in equipment malfunction or damage.

WARNING!

A warning appears like this. A warning provides additional information which, if ignored, may result in a risk of personal injury.

Important!

An important message appears like this. An important message provides supplemental information which can prevent potential problems.

Changing the display language
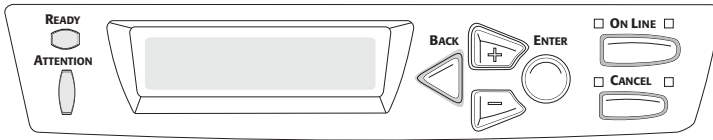
1. Press **MENU +** repeatedly until you see

SYSTEM CONFIG MENU
POWER SAVE DELAY TIME

2. Press **ENTER**.

3. Press **MENU +** repeatedly until you see

SYSTEM CONFIG MENU
LANGUAGE

4. Press **ENTER**.

5. Press **MENU +** and/or **MENU –** repeatedly until you see the language you wish to select.

6. Press **ENTER** to select this language.

7. Press **ON LINE** to exit the menu and return the printer to standby.

Media Recommendations

Your printer can handle a variety of print media, including a range of paper weights and sizes, transparencies, labels and envelopes. This section provides general advice on choice and use of media.

> **CAUTION!**
>
> **Print media must be able to withstand 446°F (230°C) for 0.2 second.**

Media Weight Designations

Weight Designation	Weight	Feed Tray	Duplexer?	Exit Tray
Light	16-19 lb. US Bond (60-71 g/m²)	Tray 1 Tray 2	No	Top[a] Rear[b]
Medium	20-27 lb. US Bond (75-101 g/m²)	Tray 1 Tray 2 MP Tray	Yes	Top Rear
Heavy	28-32 lb. US Bond (105-120 g/m²)	Tray 1 Tray 2 MP Tray	Yes (restricted to 28 lb. maximum)	Rear Only
Ultra Heavy	33-54 lb. US Bond (124-203 g/m²)	Tray 2[c] MP Tray	No	Rear Only

a. Face Down Stacker
b. Face Up Stacker
c. 47 lb. (177 g/m²) maximum for Tray 2

Media Types

Paper

The best performance is obtained when using paper designed for use in copiers and laser printers. Suitable types include:

- Hammermill® Laser Printer Radiant White, 24 lb. US Bond (90 g/m²)

- Xerox® 4024, 20 lb.US Bond (75 g/m²)

- Oki® 52206101 Bright White Proofing Paper, 32 lb. US Bond (120 g/m²)

Recommendations

- Check http://my.okidata.com for the latest information on recommended papers for your printer.

- Paper should be stored flat, away from moisture, direct sunlight and heat sources.

- **The use of heavily laid or textured paper will seriously affect the life of the image drum and give poor print quality.** Print quality can be improved by changing the media setting to 'Ultra Heavy.' However, this will reduce the output speed and prevent the use of the duplex option.

- *Avoid*:
  - Damp, damaged or curled paper.
  - Very smooth, shiny or glossy paper.
  - Heavily embossed letterhead paper, very rough paper or paper that has a large grain difference between the two sides.
  - Paper with perforations, cut-outs or ragged edges.
  - Carbon paper, recycled paper, NCR paper, photosensitive paper, pressure sensitive paper or thermal transfer paper.

Envelopes
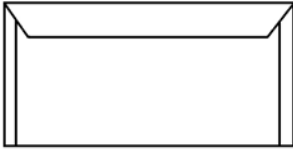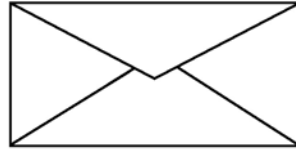
Yes   **No**

- Use only recommended envelopes (Oki 52206301 and 52206302: see "Selecting/Using OKI Print Media" in your *Handy Reference Guide* for more information).

- Envelopes should be stored flat and away from moisture, direct sunlight and heat sources.

- Don't use envelopes with windows or metal clasps.

- Don't use damp, damaged or curled envelopes.

CAUTION
Print media must be able to withstand 446°F (230°C) for 0.2 second.

Transparencies
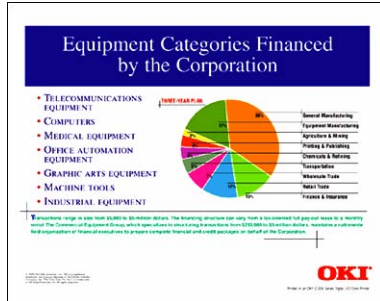
- Use only recommended transparencies (3M CG3720, Oki 52205701).

- Avoid office transparencies designed for use by hand with marker pens. *These will melt in the fuser and cause damage.*

Labels

- Avery 5161 White Laser Labels (letter size) work well with your printer. Check http://my.okidata.com for the latest information on media for your printer.

- Use only labels designed for use in color laser printers and photocopiers.

CAUTION!

- **Labels should cover the entire carrier sheet.**
- **Carrier sheet or adhesive must not be exposed to any part of the printer**

Media: Tray 1 and Optional Tray 2

Media Sizes: Trays 1 & 2

Paper size	Feed		Exit	
	Tray 1	Tray 2	Top[a]	Rear[b]
Letter (8½ x 11")	S, D[c]	S, D	S, D	S, D
Legal-14 (8½ x 14")	S, D	S, D	S, D	S, D
Legal-13.5 (8½ x 13.5")	S, D	S, D	S, D	S, D
Legal-13 (8½ x 13")	S, D	S, D	S, D	S, D
Executive (7¼ x 10½")	S, D	S, D	S, D	S, D
A4 (210 x 297 mm)	S, D	S, D	S, D	S, D
A5 (145 x 210 mm)	S, D	S, D	S, D	S, D
A6 (105 x 148 mm)	S	Not Usable.	Not Usable.	S
B5 (182 x 257 mm)	S, D	S, D	S, D	S, D
Custom	S: min. 3.94 x 5.83" [100 x 148 mm], max. 8.5 x 14" [215.9 x 355.6 mm]	S: min. 3.94 x 8.27" [100 x 210 mm], max. 8.5 x 14" [215.9 x 355.6 mm]	S	Not Usable.

a. Use the Top Exit (Face Down Stacker) only for paper up to 47 lb. US Bond (98 lb. Index, 177 g/m^2).

b. Switch to the Rear Exit (Face Up Stacker) when you are printing paper heavier than 47 lb. US Bond (98 lb. Index, 177 g/m^2).

c. S = Simplex; D = Duplex (printing on both sides)

Auto Switching

If you have identical paper stock loaded in the Multi-Purpose Tray or the optional Second Paper Tray, you can have the printer automatically switch to the other tray when the current tray runs out of paper. This function is enabled in the Print Menu (see the "Menu Functions" section of this manual).

Media: Multi-Purpose Tray

Use the Multi-Purpose (MP) Tray for printing card stock, labels, envelopes and transparencies. Or load a stack of letterhead stationery to switch to as needed.

- A stack of media about 3/8" (10 mm) high can be loaded into the MP Tray, equivalent to about 10 envelopes or 50 transparencies.

- Media should be loaded print side *up*, top edge facing into the printer.

- Generally, the rear exit (Face Up Stacker) is used with the MP Tray.

Important!

The duplex unit can be used for paper only, at weights up to 28 lb. US Bond (105 g/m^2 metric, 58 lb. Index). Do not use the duplex (two-sided printing) function for labels, envelopes, transparencies, or paper heavier than 28 lb. US Bond.

Media Sizes: Multi-Purpose Tray

Paper size	Feed	Exit	
	MP Tray	Rear[a]	Top[b]
Letter (8½ x 11")	Yes	Yes	Yes
Legal-14 (8½ x 14")	Yes	Yes	Yes
Legal-13.5 (8½ x 13.5")	Yes	Yes	Yes
Legal-13 (8½ x 13")	Yes	Yes	Yes
Executive (7¼ x 10½")	Yes	Yes	Yes
A4 (210 x 297 mm)	Yes	Yes	Yes
A5 (145 x 210 mm)	Yes	Yes	Yes
B5 (182 x 257 mm)	Yes	Yes	Yes
Envelopes (COM-10)	Yes	Yes	No
Custom: min. 3.94 to 5.83" [100 x 148 mm]; max. 8½ x 14" [216 x 356 mm], or banner[c]	Yes	Yes	No

a. Use the Rear Exit (Face Up Stacker) for heavy paper, transparencies, envelopes, and labels.
b. Use the Top Exit (Face Down Stacker) only for paper up to 47 lb. US Bond (98 lb. Index, 177 g/m^2).
c. Banner specifications:
   – Length: up to 47¼" (1.2 m)
   – Width Range = 8¼ to 8½" (210 to 215.9 mm)
   – Weight Range = 28 to 34 lb. US Bond (105 to 128 g/m^2)
   – Path = Rear Exit (Face Up Stacker) only
   – Feed one sheet at a time.

Top Exit (Face Down Stacker)

- Holds up to 250 sheets of 20-lb. US Bond (42 lb. Index, 75 g/m² metric) standard paper.

- Handles paper stocks up to 47 lb. US Bond (98 lb. Index, 176 g/m² metric).

- Pages are printed in reading order (page 1 first; last page on top, facing down).

Rear Exit (Face Up Stacker)

The face up stacker at the rear of the printer should be opened and the tray extension pulled out when required for use. In this condition paper will exit via this path, regardless of driver settings.

- The face up stacker can hold up to 100 sheets of 20-lb. US Bond (42 lb. Index, 75 g/m²) standard paper.

- Handles stocks up to 54 lb. US Bond (113 lb. Index, 113 lb. Index, 203 g/m² metric).

- Papers are printed face up: for multi-page documents, select reverse order printing in your application Print dialog box so that the stack is in correct order.

NOTE

Always use this stacker and the Multi-Purpose Tray for paper stocks heavier than 47 lb. US Bond (98 lb. Index, 176 g/m² metric).

Optional Duplex Unit

This option provides automatic two-sided printing on the same range of paper sizes as optional Tray 2 (i.e. all Tray 1 sizes except A6), using paper from 20 to 28-lb. US Bond (42 to 58 lb. Index, 75 to 105 g/m² metric).

Loading Paper

Trays 1 and 2

> **NOTE**
>
> **If you have the optional second paper tray installed:**
> - **If you are printing from the 1st (upper) tray, you can pull out the 2nd (lower) tray and reload it while the printer is printing.**
> - **If you are printing from the 2nd (lower) tray, *do not pull out the 1st (upper) tray while printing*. This will cause a paper jam.**

1. Remove the paper tray from the printer.

2. Fan the paper to be loaded at the edges (**1**) and in the middle (**2**), then tap the edges of the stack on a flat surface to make it flush again (**3**).

1   **2**   **3**
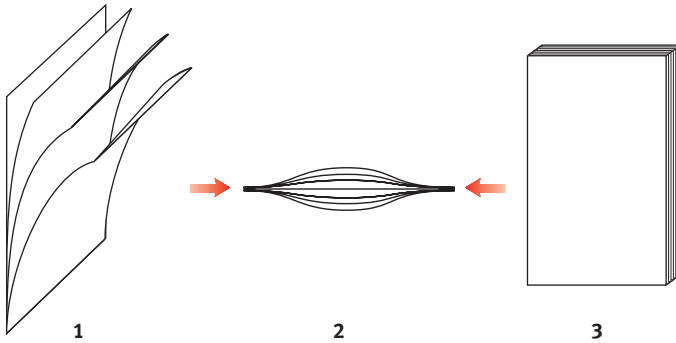
3. Load paper print side down, making sure the rear stopper (**1**) and paper guides (**2**) are snug against the paper.
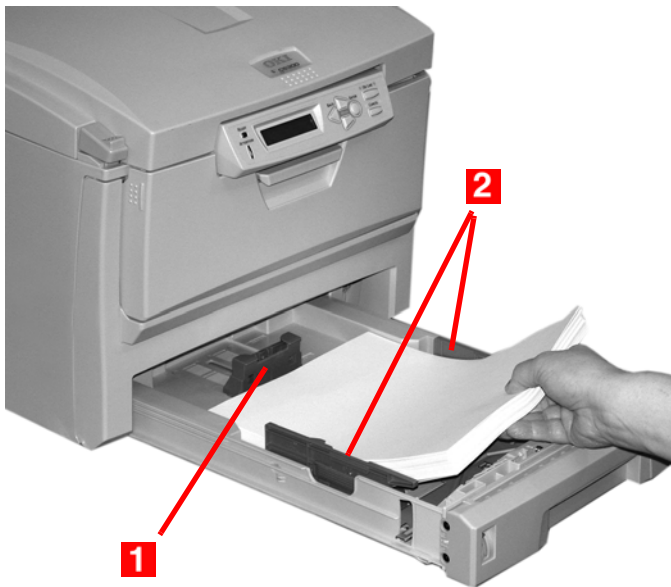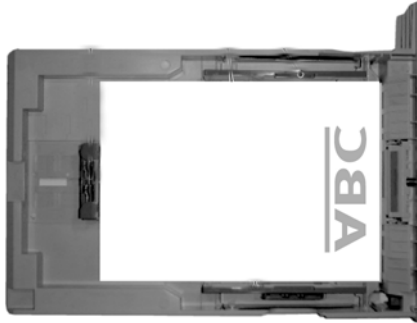
4. Gently close the paper tray.

NOTE

To prevent paper jams:

- **Do not leave space between the paper and the guides and rear stopper.**
- **Do not overfill the paper tray. Capacity depends on the type of paper stock.**
- **Do not load damaged paper.**
- **Do not load paper of different sizes or types at the same time.**
- **Do not pull the paper tray out during printing (except as described above for the 2nd tray).**

Multi-Purpose (MP) Tray

NOTE

The MP Tray will take a stack of media about 3/8" (10 mm) high, equivalent to about 10 envelopes or 50 transparencies.

Do not exceed the 3/8" (10 mm) media stack height.

1. Open the MP Tray.

2. Press down on the loading platform.
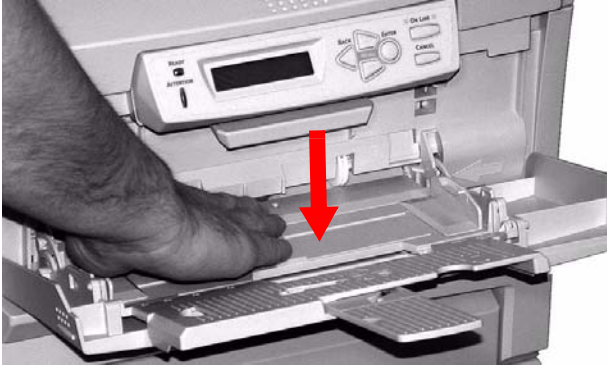
3. Load the print media and adjust the guides (**1**) to the size media being used.
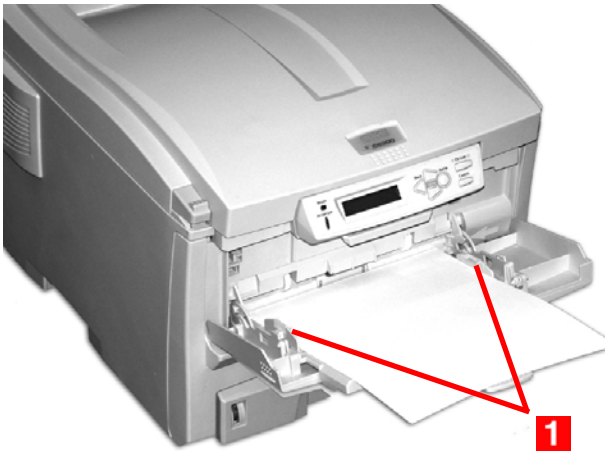
- Letterhead stationery:
    - For single-sided printing, load with pre-printed side *up* and the top edge *into* the printer.
    - For two-sided (duplex) printing, load with pre-printed side *down* and top edge *away from* the printer. (Optional duplex unit must be installed.)
- Envelopes: load print side up (flap down) with top edge to the left and short edge into the printer. Do not select duplex printing on envelopes.

4. Press the blue tray latch (**1**) toward the paper stack to lift the paper platform into the feed position.

Macintosh OS 9.x Operation

The printer driver supplied provides several controls for altering the color output of your printer. For general use, the Auto settings will suffice, providing reasonable default settings that will produce good results for most documents.

Many applications have their own color settings and these may override the settings in the printer driver. Please refer to the documentation for your software application for details on how that particular program's color management functions.

This section will only detail options as they apply to the LaserWriter 8 driver. Refer to manufacturer's guidelines regarding other driver operations, for example the AdobePS driver.

Color Print Matching

Factors That Affect the Appearance of Printed Documents

If you wish to manually adjust the color settings in your printer driver, please be aware that *color reproduction is a complex topic, and there are many factors to take into consideration*. Some of the most important factors are listed below.

Differences between the Range of Colors a Monitor or Printer Can Reproduce

• Neither a printer nor a monitor is capable of reproducing the full range of colors visible to the human eye. Each device is restricted to a certain range of colors. In addition to this, a printer cannot reproduce all of the colors displayed on a monitor, and vice versa.

• Both devices use very different technologies to represent color. A monitor uses Red, Green and Blue (RGB) phosphors (or LCDs), a printer uses Cyan, Magenta, Yellow and Black (CMYK) toner or ink.

- A monitor can display very vivid colors such as intense reds and blues and these cannot be easily produced on any printer using toner or ink. Similarly, there are certain colors, (some yellows for example), that can be printed, but cannot be displayed accurately on a monitor. This disparity between monitors and printers is often the main reason that printed colors do not match the colors displayed on screen.

Viewing conditions

A print can look very different under different lighting conditions. For example, the colors in a print may look different when viewed standing next to a sunlit window, compared to how they look under standard office fluorescent lighting.

Printer driver color settings

The driver settings for Manual color can change the appearance of a print. There are several options available to help match the printed colors with those displayed on screen. These options are explained in subsequent sections of the User Manual.

To access the color matching options in the driver discussed below:

1. Access the printer settings page via the Print dialog from any application (usually accessed via **File** → **Print**).

2. Click on the **General** drop down menu and select **Color Option**.

Monitor settings

The brightness and contrast controls on your monitor can change how your document looks on-screen. Additionally, your monitor's color temperature influences how "warm" or "cool" the colors look.

NOTE

Several of the Color Matching options make reference to your monitor's Color Temperature. Many modern monitors allow the color temperature to be adjusted using the monitor's control panel.

There are several settings found on a typical monitor:

- **5000k***

    Warmest; yellowish lighting, typically used in graphics arts environments.

- **6500k**

    Cooler; approximates daylight conditions.

- **9300k**
    Cool; the default setting for many monitors and television sets.

*k = degrees Kelvin, a measurement of temperature

How Your Software Application Displays Color

Some graphics applications such as CorelDRAW® or Adobe® Photoshop® may display color differently from "office" applications such as Microsoft® Word. Please see your application's on-line help or user manual for more information.

Paper Type

The type of paper used can also significantly affect the printed color. For example, a printout on recycled paper can look duller than one on specially formulated glossy paper.

Choosing a Color Matching Method

There is no one correct way to achieve a good match between the document displayed on your monitor and its printed equivalent. There are many factors involved in achieving accurate and reproducible color.

The following guidelines may help in achieving good color output from your printer. There are several suggested methods, depending on the type of document you are printing.

NOTE

These suggestions are for guidance only. Your results may vary depending on the application from which you are printing. Some applications will override any color matching settings in the printer driver without warning.

RGB or CMYK?

The guidelines for choosing a color matching method make distinctions between Red, Green, Blue (RGB) and Cyan, Magenta, Yellow, Black (CMYK).

Generally, most documents you print will be in RGB format. This is the most common, and if you do not know your document's color mode, assume that it is RGB.

Typically CMYK documents are only supported in professional Desktop Publishing and Graphics applications.

Matching Photographic Images

RGB only

Oki Color Matching (found in the printer driver under Color Control) is a generally a good choice. Select a matching method appropriate to your monitor.

RGB or CMYK

If you are printing photographic images from a graphics application such as Adobe Photoshop, you may be able to use Soft-Proofing to simulate the printed image on your monitor. To do this, you can use the ICC-Profiles provided by Oki, and then print using the ICC profiles as the Print Space (or Output space).

Matching Specific Colors

(For instance, a Company logo.)

RGB only

• Oki Color Matching, and the sRGB setting.

• PostScript Color Matching using the Absolute Colorimetric option.

• Use the Color Swatch Utility to print out a chart of RGB swatches and enter your desired RGB values in your application's color picker.

RGB or CMYK

• If you are printing from a graphics application such as Adobe Photoshop, you may be able to use Soft-Proofing to simulate the printed image on your monitor. To do this, you can use the ICC-Profiles provided by Oki, and then print using the ICC profiles as the Print Space (or Output space).

• Alternatively, use PostScript Color Matching with the Absolute Colorimetric setting.

Printing Vivid Colors

RGB only

• Use Oki Color Matching, with either the Monitor 6500k Vivid, sRGB or Digital Camera settings.

RGB or CMYK

• Use PostScript Color Matching with the Saturation option.

Oki Driver Options

This section describes only the OKI-supplied driver selections.

Color Option
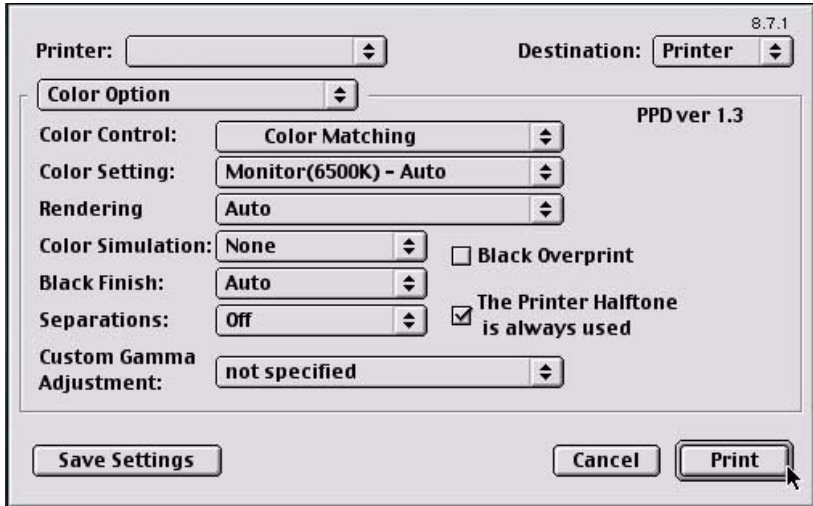
1. To access Color Option, first select your desired printer from an application using **File** → **Print**.

2. Then open the drop-down menu directly underneath the printer and select **Color Option**.
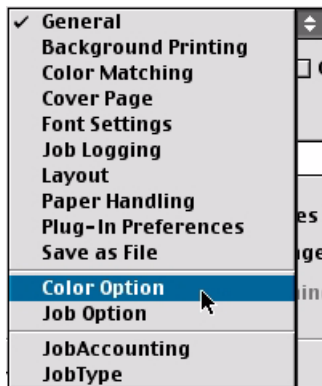
Color Control

The Color Control option allows you to determine the scheme in which the printer will display colors.

```
✓  OKI Color Matching
   PostScript Color Matching
   No Color Matching
   Print in Grayscale
```

1. Select the option desired.

OKI Color Matching

This is OKI's proprietary color matching system and affects *RGB data only.* This is the default setting and provides the fastest, best color matching for your printer.

Postscript Color Matching

This uses PostScript Color Rendering Dictionaries built-in to the printer, and affects both RGB and CMYK data.

No Color Matching

No color correction occurs when selected. This option is beneficial when other matching regimens are used, specifically if you select a Color Simulation option.

Print In Grayscale

No color will print. The printer will interpret all colors as a variation of grays.

Color Setting

This option allows you to select your color settings as they appear on your monitor.

```
✓  Monitor(6500K) – Auto
   Monitor(6500K) – Perceptual
   Monitor(6500K) – Vivid
   Monitor(9300K)
   Digital Camera
   sRGB
```
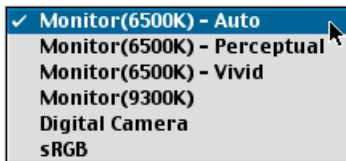
1. Select the option desired.

Monitor(6500k) Auto

The default setting that selects the best options for your printer. This selection works best for office situations.

Monitor (6500k) Perceptual

Optimized for printing photographs when using a monitor with a color temperature of 6500K, This is best for printing photographic images.

Monitor (6500k) Vivid

Optimized for printing bright colors when using a monitor with a color temperature of 6500K. Ideal for office graphics and text. Vivid or Digital Camera settings produce brightest colors.

Monitor (9300k)

Optimized for printing photographs when using a monitor with a color temperature of 6500K.

Digital Camera

Optimized for printing photographs taken with a digital camera. This tends to produce prints with lighter and brighter colors. For some photographs, other settings may be better depending on the subjects and the conditions under which they were taken. Vivid or Digital Camera settings produce brightest colors.

sRGB

Optimized for matching specific colors, such as a company logo color. This option attempts to simulate RGB color. The colors within the printer's color gamut are printed without any modification, and only colors that fall outside the printable colors are modified.

Rendering

When a document is printed, a conversion takes place from the document's color space to the printer color space. The rendering intents are essentially a set of rules that determine how this color conversion takes place.

1. Select the option desired.
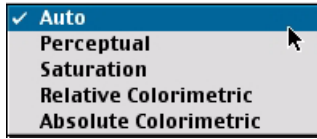
Auto

The default. Auto uses the optimum settings for a general office environment.

Perceptual

Best choice for printing photographs. Compresses the source gamut into the printer's gamut while maintaining the overall appearance of an image. This may change the overall appearance of an image as all the colors are shifted together.

Saturation

Best choice for printing bright & saturated colors if you don't necessarily care how accurate the colors are. This makes it the recommended choice for graphs, charts, diagrams etc. Maps fully saturated colors in the source gamut to fully saturated colors in the printer's gamut.

Relative Colorimetric

Good for proofing CMYK color images on a desktop printer. Much like Absolute Colorimetric, except that it scales the source white to the (usually) paper white; i.e. unlike Absolute Colorimetric, this attempts to take the paper white into account.

Absolute Colorimetric

Best for printing solid colors and tints, such as Company logos etc. Matches colors common to both devices exactly, and clips the out of gamut colors to their nearest printed equivalent. Tries to print white as it appears on screen. The white of a monitor is often very different from paper white, so this may result in color casts, especially in the lighter areas of an image.

Color Simulation

This affects **CMYK output only** and is usually used in offset printer environments only.

This option simulates what the output will look on a printing press using the ink types SWOP, Euroscale or Japan. If using CMYK Ink Simulation, it is recommended that you switch off all other Printer Color Matching by selecting the No Color Matching option under the Color Match option in the printer driver.

1. Select the option desired.

Black Finish

This setting determines Black Toner usage only.

Auto

This option is best for an office environment, with the printer determining which style is better.

Glossy

This option uses more CMYK and less Black while producing a shinier black.

Matte

This option uses more Black and less CMYK while producing a flatter black.

Separations

This option affects output only, allowing you to print all colors or separate plates.
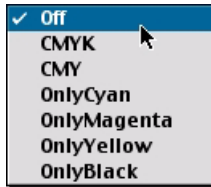
1. Select the option desired.

NOTE

You must select a non-generic PostScript Printer Description (PPD) file for a printer that supports color separations.

Custom Gamma Adjustment

NOTE

This option requires the installation and use of the Storage Device Manager (SDM) utility. See the SDM section (page 196) for further instructions.

You will need to create a custom gamma profiles using the SDM before selecting one here.

1. Click on the arrows to select the profile required.

Black Overprint

This option prevents registration errors and only works for 100% black text.

☑ Black Overprint
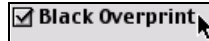
1. Click on the checkbox to enable the option.

Printer Halftone

This option prevents the halftone of a high-end graphics application from printing.

☑ The Printer Halftone is always used
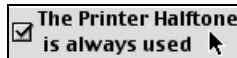
1. Click on the checkbox to enable the option.

Job Option
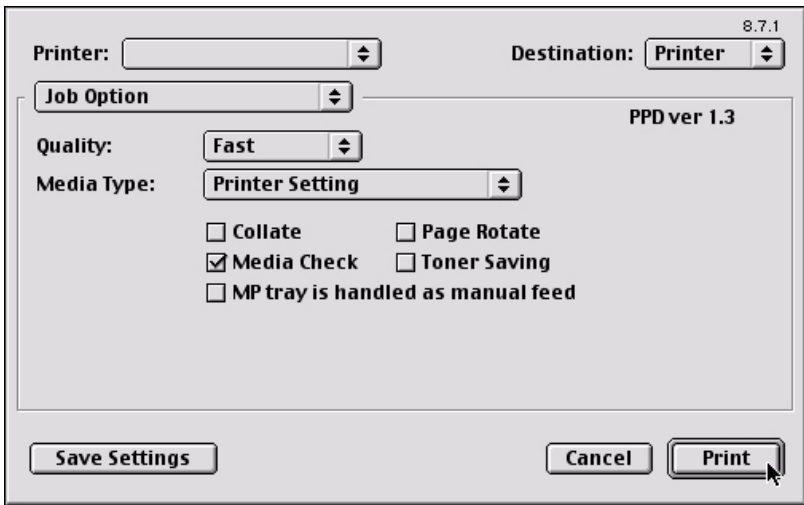
1. To access Job Option, first select your desired printer from an application using **File → Print**.

2. Then open the drop-down menu directly underneath the printer and select **Job Option**.

```
✓ General
  Background Printing
  Color Matching
  Cover Page
  Font Settings
  Job Logging
  Layout
  Paper Handling
  Plug-In Preferences
  Save as File

  Color Option
  Job Option            ▶
```

Quality

A straightforward selection of the print quality desired.

```
    Fast
  ✓ Fine          ↕
```
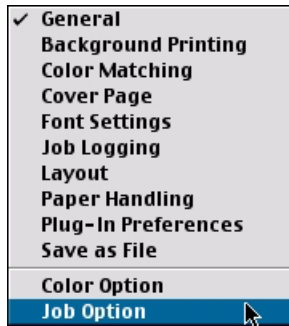
- **Fine** = high resolution, slower speed: the default. Provides optimum results when printing graphics.

- **Fast** = lower resolution, fast speed: choose this one for quick proofing of drafts.Select your desired print quality.

Media Type

Many options are available for selecting the thickness of the paper type. Normally the Printer Setting is sufficient.

```
✓ Printer Setting          ▶
  Light(17lb)
  Medium-Light(18-19lb)
  Medium(20-24lb)
  Medium-Heavy(25-27lb)
  Heavy(28-32lb)
  Ultra-Heavy(33-54lb)
  Labels1
  Labels2
  Transparency
  Glossy
```

1. Select your desired Media Type. Any option, other than Printer Setting, will override the setting at the printer.

Job Option List

A list of options to modify the printer.

☐ Collate	☐ Page Rotate
☑ Media Check	☐ Toner Saving
☐ MP tray is handled as manual feed	

Collate

Collating can be carried out with or without a hard disk drive installed. However, printers with a hard disk drive will provide greater performance. This option is useful when printing multiple copies of large documents and wish for them to be printed in sequence.

1. Click to enable collation of your documents.
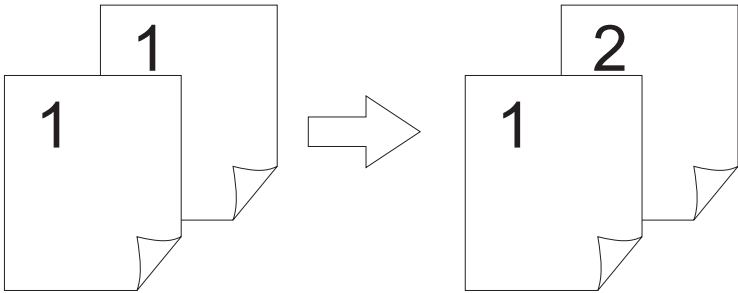
Media Check

Sets whether the printer checks the matching of paper size to that of the tray. Only standard sizes are checked.

MP tray is handled as manual feed

Checking this will cause the MP tray to be used in manual feed situations. The MP tray *cannot* be used for duplex printing.

Page Rotate

Checking this will rotate the printed material on the page 180 degrees.
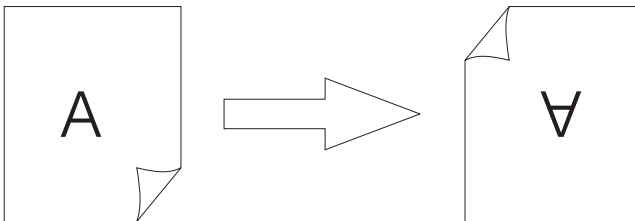
Toner Saving

Checking this will enable toner saving.

Job Accounting (optional software)

This optional plug-in, designed specifically for your printer, provides features that allow you to track printer usage, calculate printing costs, and specify user access to the printer, including setting rights to print black and white only or to print color as well.

Account ID

The Account ID is the number utilized to identify the users. Before you can log in, you must be set up as a user in the Administration Utility.
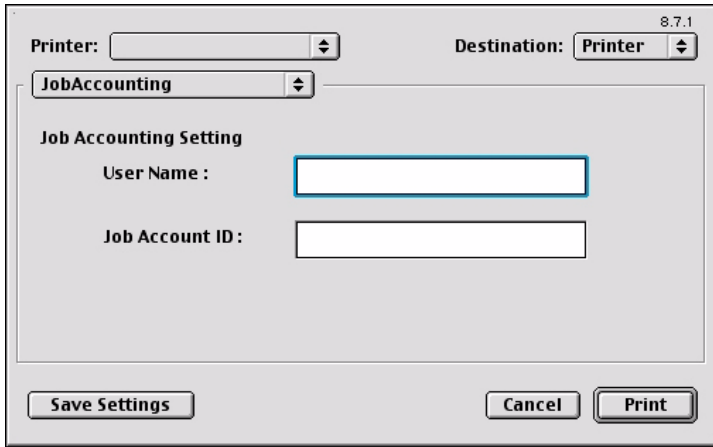
Activating Job Accounting

Once it is installed, you must activate Job Accounting before using it:

1. Select **Print Desktop...** on the **File** menu.

2. Ensure that your printer model is selected, then click **General** and select **Plug-in Preferences**.

3. Open the **Print Time Filters** menu, then check **Print Time Filters**, **JobType** and **JobAccounting**.

4. Click **Save Settings**, then click **OK**.

5. Click **Cancel**.

Using Job Accounting

1. Select **Print Desktop...** on the **File** menu.

2. Ensure that your printer model is selected.

3. Then open the drop-down menu directly underneath the printer and select **Job Accounting**.
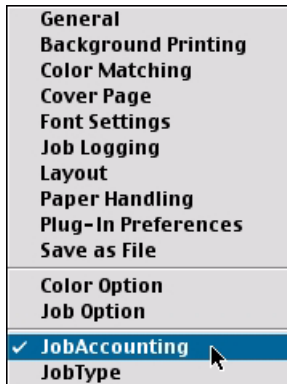
4. Enter your **User Name** and **Password** and press the **Print** button to proceed with your print job. If applicable, your **User Name** is not necessarily the same as your network login.

Job Type

This plug-in allows you to utilize the options of the printer's optional hard drive.

		8.7.1
Printer: [ ] ◆		**Destination:** [Printer ◆]

JobType [◆]

Print Type :	◉ Normal	☐ **Job Spool**
	○ Secure	
	○ Proof and Print	
	○ Store to HDD	

Job Name : [ ]

Personal ID Number : [ ]

☐ **Run maintenance cycle before printing**

[**Save Settings**]   [**Cancel**] [**Print**]

NOTES

• **The internal hard disk must be installed in the printer and enabled to allow for spooling of the print job before final printing.**

• **If the hard disk memory is insufficient for the spooled data, DISK FULL is displayed and only one copy printed.**

• **If the software application being used has a collate print option, this must be turned OFF for secure printing to operate correctly.**

• **Secure printing may not be available in some software applications.**

---

1. To access Job Type, first select your desired printer from an application using **File → Print**.

2. Then open the drop-down menu directly underneath the printer and select **Job Type**.

```
General
Background Printing
Color Matching
Cover Page
Font Settings
Job Logging
Layout
Paper Handling
Plug-In Preferences
Save as File
─────────────────
Color Option
Job Option
─────────────────
JobAccounting
✓ JobType
```

Each option on the Job Type screen is detailed below.

Print Type

From here you will select your desired option.

Normal

This is the default setting for which no further action is required.

Job Spool

If you wish to spool your print job to the printer's hard drive, select **Job Spool**.

Secure Print Setup

This option allows you to print confidential documents on printers that are shared with other users in a network environment.

```
                                                    8.7.1
Printer: [            ] [≑]      Destination: [Printer  ≑]
[ JobType                    ≑]
Print Type :      ⦿ Normal      ☐ Job Spool
                  ○ Secure
                  ○ Proof and Print
                  ○ Store to HDD
Job Name :        [                    ]
Personal ID Number : [     ]
☐ Run maintenance cycle before printing

[ Save Settings ]              [ Cancel ] [[ Print ]]
```

1. Select the **Secure** option.

2. Enter a job name of up to 16 characters next to **Job Name** and a four digit personal ID number (4-digit password (0000 to 9999)) in the **ID Number** box.

3. Press **Print** to proceed with your print job. The document will be stored on the printer's hard disk.

4. Walk up to the printer to print out the document using the front panel (see below).

Secure Printing at Printer
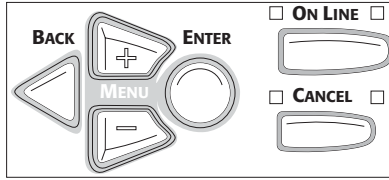
1. Press **+** to enter the menu mode.

PRINT JOBS MENU

2. Press **ENTER**.

ENTER PASSWORD

****

3. Use **+**/**−** to set the number for the first digit of the password, then press ENTER to engage the number and move to the next digit:

ENTER PASSWORD

5***

4. Repeat step 3 for each of the remaining digits in the password.

SELECT JOB
ALL JOBS

5. To print all jobs stored under your password, press ENTER. To print a specific job, press **+**/**−** until the job you wish to print appears on the second line of the display, then press **ENTER**.

The document prints and is deleted from the hard disk drive.

Deleting the Confidential Document Before Printing It

1. Press **+** to enter the menu mode.

PRINT JOBS MENU

---

2. Press **ENTER**.

ENTER PASSWORD

                            ****

---

3. Use **+**/**−** to set the number for the first digit of the password, then press ENTER to engage the number and move to the next digit:

ENTER PASSWORD

                            5***

---

4. Repeat step 3 for each of the remaining digits in the password.

SELECT JOB
ALL JOBS

---

5. Press **CANCEL**.

DELETE THE JOB
Y=ENTER/N=CANCEL

---

6. Press **ENTER** to delete the job, then press **ON LINE**.

NOTE

An alternative method of printing or deleting the document is to use the Storage Device Manager if you are on an AppleTalk network: see page 196.

Proof and Print

Proof and print allows printing of a single copy of a document for checking before printing multiple copies of the same document. First the document is assigned a password and processed to a print file. The file is saved on the hard disk drive and one copy prints. If the document is okay for printing, the remaining copies are printed on demand by entering the password through the printer's front panel.

Once the document is printed, it is deleted from the hard drive. If you wish to retain the document on the hard disk drive after printing it, use the Store to Hard Disk feature (see page 52)

NOTES

• **The internal hard disk must be installed in the printer and enabled, to allow for spooling of the print job before final printing.**

• **If the hard disk memory is insufficient for the spooled data, DISK FULL is displayed and only one copy is printed.**

• **If the software application being used has a collate print option, it must be turned OFF for proof and print to operate correctly.**

• **Proof and print may not be available in some software applications.**

1. Select **Proof and Print**.

2. Enter a job name of up to 16 characters under **Job Name Setting** and a four digit personal ID number (0000 to 9999).

3. Click **Print** to proceed with your print job. Print the document from the software application being used. The document will be stored on the printer's hard disk and one copy will print for your perusal.

4. After checking the proof, you then can print or delete (if incorrect) the remaining copies of the document using the procedures given below.

Printing copies from Proof and Print
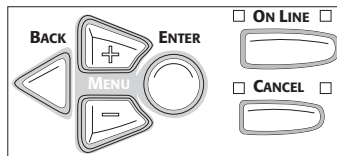
1. Press **+** to enter the menu mode.

PRINT JOBS MENU

---

2. Press **ENTER**.

ENTER PASSWORD

                  ****

---

3. Use **+**/**–** to set the number for the first digit of the password, then press **ENTER** to engage the number and move to the next digit:

ENTER PASSWORD

                  5***

---

4. Repeat step 3 for each of the remaining digits in the password.

```
SELECT JOB
ALL JOBS
```

5. Press **+**/**—** until the name of the job you wish to print appears on the second line of the display, then press **ENTER**.

The document prints and is deleted from the hard disk drive.

Deleting copies from Proof and Print

Deleting The Document Before Printing Multiple Copies

If the proof is not ready for printing, the job must be deleted from the printer:

1. Press **+** to enter the menu mode.

```
PRINT JOBS MENU
```

2. Press **ENTER**.

```
ENTER PASSWORD
                    ****
```

3. Use **+**/**—** to set the number for the first digit of the password, then press ENTER to engage the number and move to the next digit:

```
ENTER PASSWORD
                    5***
```

4. Repeat step 3 for each of the remaining digits in the password.

```
SELECT JOB
ALL JOBS
```

5. Press **CANCEL**.

DELETE THE JOB
Y=ENTER/N=CANCEL

6. Press **ENTER** to delete the job, then press **ON LINE**.

> ### NOTE
> **An alternative method of printing or deleting the document is to use the Storage Device Manager if you are on an AppleTalk network: see page 196.**

Store To Hard Disk

Store to HDD (job spooling) allows print jobs to be temporarily stored on the hard disk before printing. This is good for forms, generic memos, letterhead stationery, etc.

### NOTES

- **The internal hard disk must be installed in the printer and enabled to allow for spooling of the print job before final printing.**
- **If the hard disk memory is insufficient for the spooled data, DISK FULL is displayed and only one copy printed.**
- **If the software application being used has a collate print option, this must be turned OFF for store to hard disk to operate correctly.**
- **Store To Hard Disk may not be available in some software applications.**

---

1. Select **Store to HDD**.

2. Enter a job name of up to 16 characters under J**ob Name** and a four digit personal ID number (0000 to 9999).

3. Click **Print** to proceed with your print job. The document will be stored on the printer's hard disk.

4. The document can then be printed or deleted using the procedures given below.

Printing the Stored Document from The Front Panel
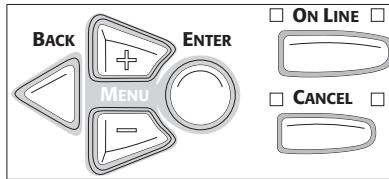
1. Press **+** to enter the menu mode.

PRINT JOBS MENU

2. Press **ENTER**.

ENTER PASSWORD

                         ****

3. Use **+**/**−** to set the number for the first digit of the password, then press **ENTER** to engage the number and move to the next digit:

ENTER PASSWORD

                       5***

4. Repeat step 3 for each of the remaining digits in the password.

SELECT JOB
ALL JOBS

5. Press **+**/**−** until the name of the job you wish to print appears on the second line of the display, then press **ENTER**.
The document prints.

Deleting the stored job from the hard disk drive

To delete a document stored on the Hard Disk Drive:

1. Press **+** to enter the menu mode.

PRINT JOBS MENU

2. Press **ENTER**.

ENTER PASSWORD
                    ****

3. Use **+**/**−** to set the number for the first digit of the password, then press ENTER to engage the number and move to the next digit:

ENTER PASSWORD
                  5***

4. Repeat step 3 for each of the remaining digits in the password.

SELECT JOB
ALL JOBS

5. Press **CANCEL**.

DELETE THE JOB
Y=ENTER/N=CANCEL

6. Press **ENTER** to delete the job, then press **ON LINE**.

NOTE

An alternative method of printing or deleting the document is to use the Storage Device Manager if you are on an AppleTalk network: see page 196.

Run Maintenance Cycle Before Printing

This option allows you to improve your print quality if you suspect there is a problem with printing, such as too much graininess in the print.

1. Select **Run Maintenance Cycle Before Printing** to force the printer to automatically clean itself before printing.

General Printing Directions

What follows are descriptions of common printing issues common to the Macintosh environment. This section does not attempt to cover all the options that might occur, but rather, the typical printing operations that can benefit from detailed descriptions.

You can also refer to your Macintosh online help or manual for further information.

Multiple Pages on One Sheet

1. To access, first select your desired printer from an application using **File → Print**.

2. Then open the drop-down menu directly underneath the printer and select **Layout**.

General
Background Printing
Color Matching
Cover Page
Font Settings
Job Logging
✓ **Layout** ▶
Paper Handling
Plug-In Preferences
Save as File
Color Option
Job Option
JobAccounting
JobType
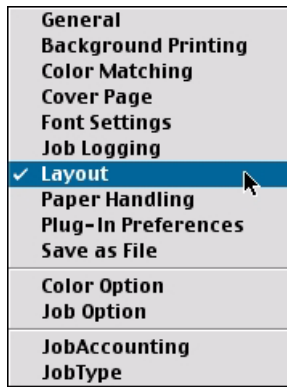
3. From the Layout screen, select the options desired.
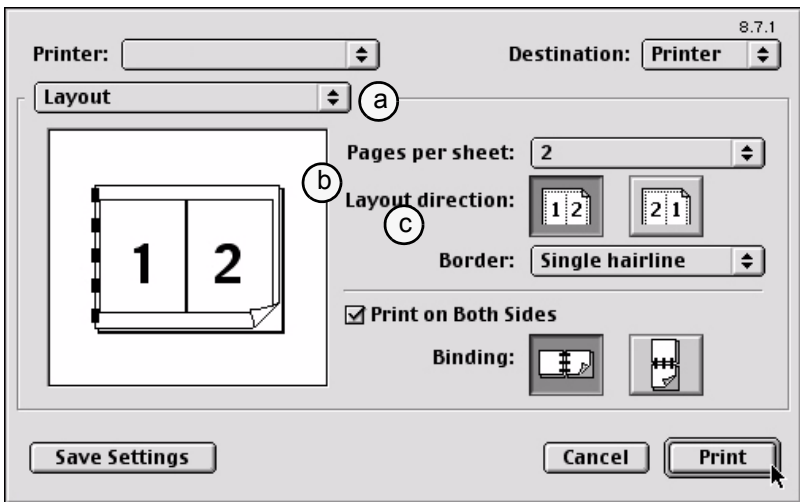
a. For Multiple Pages, access **Pages per sheet**

b. Select the desired direction.

c. Select a border between the sheets, if desired.

4. Click **Print** to print or **Save Settings** to save and close the printer dialog box.

Duplex

***Note:The optional duplex unit must be installed in the printer
and enabled before duplex printing can be carried out.***

1. To access, first select your desired printer from an application
using **File—Print**.

2. Then, open the drop-down menu directly underneath the printer
and select **Layout**.

General
Background Printing
Color Matching
Cover Page
Font Settings
Job Logging
✓ Layout
Paper Handling
Plug-In Preferences
Save as File
Color Option
Job Option
JobAccounting
JobType
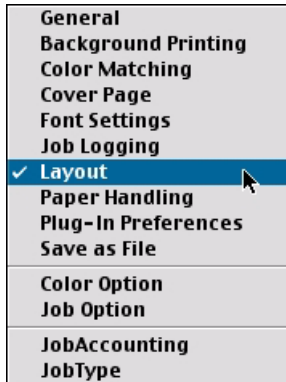
3. From the Layout screen, select the options desired.
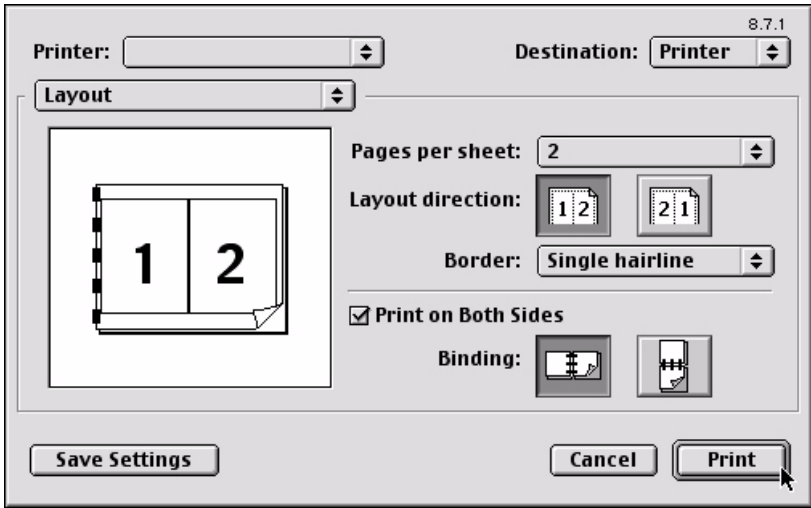
    a. For Duplexing (printing on both sides of the sheet), press the button for **Print on Both Sides**.

    b. Select which **Binding** you prefer. Normally, the first option is the default.

NOTE

For duplex printing:
- **Standard paper sizes only.**
- **Paper weight range 20 to 28 lb. US Bond (75 to 105 g/m².)**
- **Paper must be loaded print side up.**
- **Any tray (Tray 1, optional Tray 2, MP tray) can be used.**

---

4. Click **Print** to print or **Save Settings** to save and close the printer dialog box.

Collating

Collating can be carried out with or without a hard disk drive installed. However, installing an HDD will achieve better performance.

If the software application being used has a collate print option, it is recommended to use only one collate option to prevent any conflicts in printing, i.e. collate from the software application or collate from the printer driver.

The following instructions explain how to select collating using a printer driver.

1. To access, first select your desired printer from an application using **File—Print**..

2. The **General** dialog box should already be displayed. If not, then select **General** from the menu.

3. From the General screen, click the button next to Collate to enable the function.
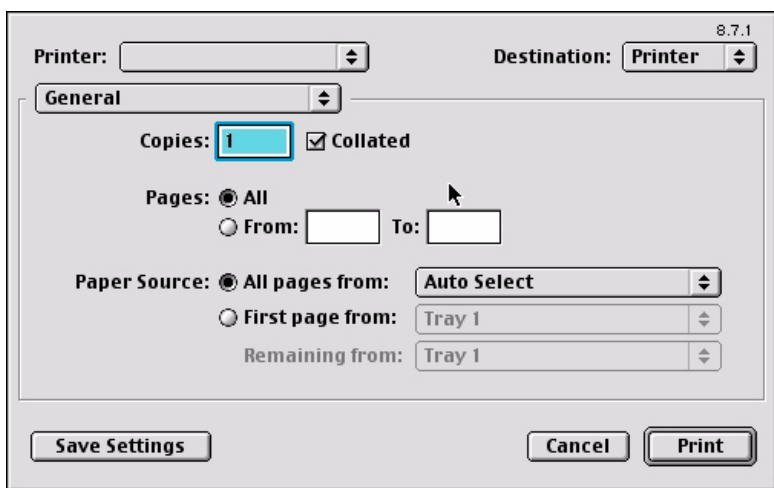
4. Click **Print** to print or **Save Settings** to save and close the printer dialog box.

Macintosh OS 10.1 & 10.2 Printer Drivers

See your printed *Software Installation Guide* for information on installing printer drivers.

Adjusting Options

Apple Computer has not enabled **Configure Printer...** as of release OS 10.2. Therefore, direct configuration of the printer driver is unavailable at this time.
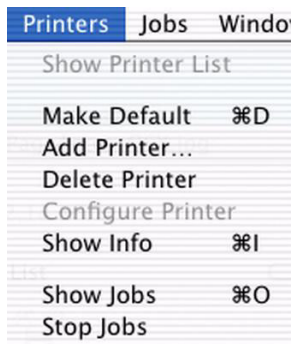
Macintosh OS X Operation

This section explains how to change the printer's properties for specific print jobs using OS X.1 and X.2. The settings for printer properties are accessed directly from within an application. Most applications allow the printer properties to be accessed from within the document print dialog box.

Color Print Matching

The install utility provides a color matching profile for your printer. In general, using the **OKI Color Matching** settings will provide reasonable default settings that produce good results for most documents.

Many applications have their own color settings and these may override the settings in the printer driver. Please refer to the documentation for your software application for details on how that particular program's color management functions.

Factors that affect the appearance of prints

If you wish to manually adjust the color settings in your printer driver, please be aware that color reproduction is a complex topic, and there are many factors to take into consideration. Some of the most important factors are listed below.

Differences between the range of colors a monitor or printer can reproduce

- Neither a printer nor a monitor is capable of reproducing the full range of colors visible to the human eye. Each device is restricted to a certain range of colors. Additionally, a printer cannot reproduce all of the colors displayed on a monitor and vice versa.

- Both devices use very different technologies to represent color. A monitor uses Red, Green and Blue (RGB) phosphors (or LCDs), a printer uses Cyan, Yellow, Magenta and Black (CMYK) toner or ink.

- A monitor can display very vivid colors such as intense reds and blues and these cannot be easily produced on any printer using toner or ink. Similarly, there are certain colors, (some yellows, for example), that can be printed, but cannot be displayed accurately on a monitor. This disparity between monitors and printers is often

the main reason that printed colors do not match the colors displayed on screen.

Viewing conditions

A print can look very different under different lighting conditions. For example, the colors in a print may look different when viewed standing next to a sunlit window, compared to how they look under standard office fluorescent lighting.

ICC Color Profile Select

Apple provides a **ColorSync Utility** → **Devices** that allows selection of the OKI supplied ICC color profile for your monitor. The profile will attempt to calibrate the monitor to more closely match the printer's output. However, merely selecting the profile will not automatically produce perfect results as many factors will contribute to the gamut of color selection.

1. Navigate to the utility by accessing your **Local Hard Drive — Applications** → **Utilities** → **ColorSync Utility**.

2. Click the arrow next to **Displays** and select your monitor (in this example it is iMac). In the **Current Profile** area click the **down arrow** and select **Other...** to access the OKI Color Profile.
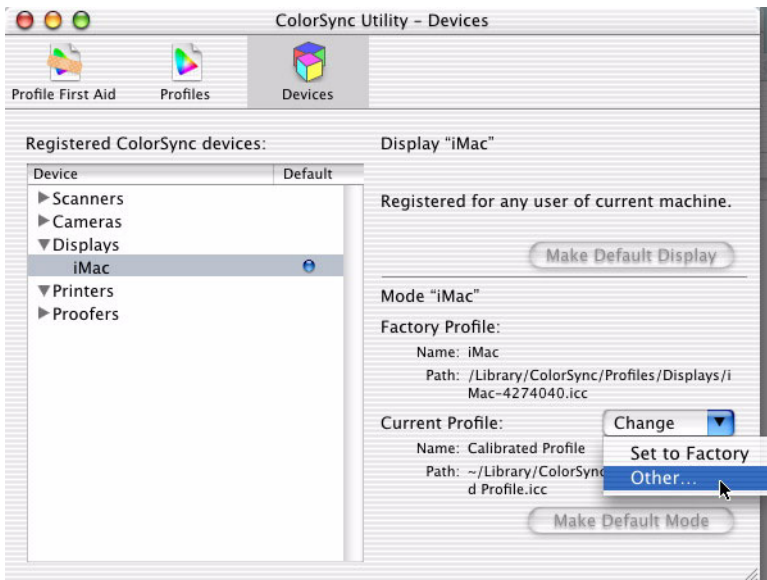
3. From the Profile selection menu, find and click on the desired ICC Profile and then press **Open** to enable.
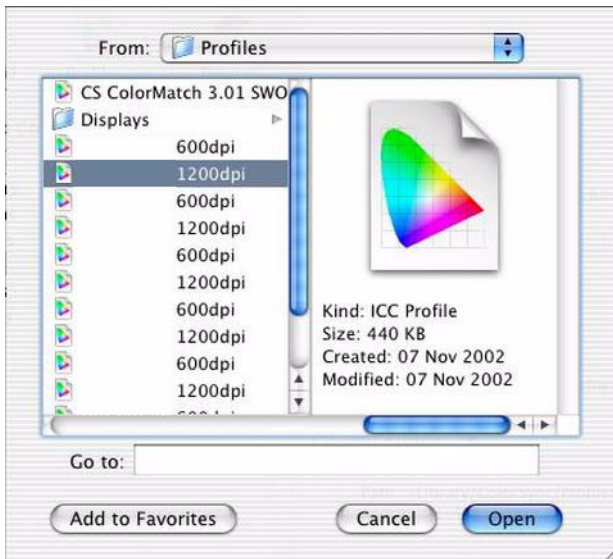
Default Color Profile Select

Not to be confused with the **ColorSync Utility**, Apple also provides a System Preference utility, **ColorSync**, for selection of color profiles for the printer and documents when a document does not contain embedded profiles.

1. Navigate to the utility by accessing your **System Preferences — ColorSync**.

2. On the first tab, **Default Profiles**, select your default profiles by pressing the double arrow and highlighting the profile desired.
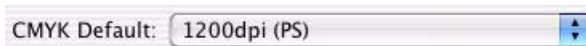
The above example details the CMYK output space default selection.

Monitor settings

The brightness and contrast controls on your monitor can change how your document looks on-screen. You can calibrate your

monitor's color regimen in **System Preferences** → **Displays** → **Color**. Additionally, your monitor color temperature influences how "warm" or "cool" the colors look.

<div style="border: 3px solid green; padding: 1em;">

NOTE

Several of the Color Matching options make reference to your monitor's Color Temperature. Many modern monitors allow the color temperature to be adjusted using the monitor's control panel.

</div>

There are several settings found on a typical monitor:

- **5000k or D50** Warmest; yellowish lighting, typically used in graphics arts environments.

- **6500k or D65** Cooler; approximates daylight conditions.

- **9300k** Cool; the default setting for many monitors and television sets.

 (k = degrees Kelvin, a measurement of temperature)

How your software application displays color

Some graphics applications such as Macromedia Freehand or Adobe Photoshop may display color differently from "office" applications such as Microsoft Word. Please see your application's online help or user manual for more information.

Paper type

The type of paper used can also significantly affect the printed color. For example, a printout on recycled paper can look duller than one on specially formulated glossy paper.

Choosing a Color Matching Method

There is no one correct way to achieve a good color match between the document displayed on your monitor, and it's printed equivalent. There are many factors involved in achieving accurate and reproducible color.

However, the following guidelines may help in achieving good color output from your printer. There are several suggested methods, depending on the type of document you are printing.

NOTE

These suggestions are for guidance only. Your results may vary depending on the application from which you are printing. Some applications will override any color matching settings in the printer driver without warning.

RGB or CMYK?

The guidlines for choosing a color matching method makes distinctions between Red, Green, Blue (RGB) and Cyan, Magenta, Yellow, Black (CMYK).

Generally, most office documents you print will be in RGB format. This is the most common, and, if you do not know your document's color mode, assume that it is RGB.

Typically CMYK documents are only used in professional Desktop Publishing and Graphics applications.

Matching Photographic Images

RGB only

Oki's Color Matching (found in the printer driver under **Printer Features** → **Features 2**) is a generally a good choice. Select a matching method appropriate to your monitor.

RGB or CMYK

If you are printing photographic images from a graphics application such as Adobe Photoshop, you may be able to use Soft-Proofing to simulate the printed image on your monitor. To do this, you can use the ICC-Profiles provided by Oki, and then print using the ICC profiles as the Print Space (or Output space).

Matching Specific Colors

(For instance, a Company logo.)

RGB only

• Oki Color Matching, and the sRGB setting.

• PostScript Color Matching using the Absolute Colorimetric option.

RGB or CMYK

• If you are printing from a graphics application such as Adobe Photoshop, you may be able to use Soft-Proofing to simulate the printed image on your monitor. To do this, you can use the ICC-Profiles provided by Oki, and then print using the ICC profiles as the Print Space (or Output space).

• Alternatively, use PostScript Color Matching with the Absolute Colorimetric setting.

Printing Vivid Colors

RGB only

• Use Oki Color Matching, with either the Monitor 6500k Vivid, sRGB or Digital Camera settings.

RGB or CMYK

• Use PostScript Color Matching with the Saturation option.

Driver Options

This section references only the OKI-supplied driver selections, **Printer Features**.

Printer Features

1. To access **Printer Features**, open your print driver from within an application by selecting **File → Print**.

2. Then open the drop-down menu at left and select **Printer Features**.

```
✓ Copies & Pages
  Layout
  Duplex
  Output Options
  Error Handling
  Paper Feed
  Printer Features
  Summary
```

Feature Set 1

The tab's features are explained below.

Black Finish

This setting determines Black Toner usage only.
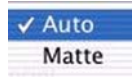
Auto
This option is best for an office environment, with the printer determining which style is better.

Matte
This option uses more Black and less CMYK while producing a flatter black.

Black Overprint

This option prevents registration errors and only works for 100% black text.

1. Click on the checkbox to enable the option.
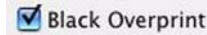
Collate

Collating can be carried out with or without a hard disk drive installed. However, printers with a hard disk drive will provide greater performance. This option is useful when printing multiple copies of large documents and you want to print them in sequence.

1. Click to enable collation of your documents.
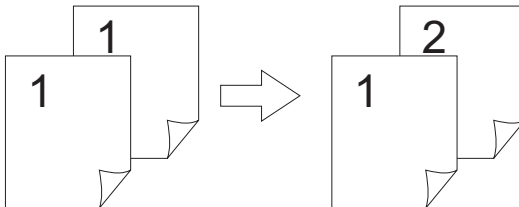
Color Control
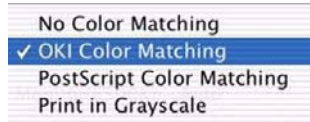
No Color Matching
✓ OKI Color Matching
PostScript Color Matching
Print in Grayscale

No Color Matching
No color correction occurs when selected. This option is beneficial when other matching regimens are used, specifically if you select a Color Simulation option.

OKI Color Matching
This is OKI's proprietary color matching system and affects *RGB data only.* This is the default setting and provides the fastest, best color matching for your printer.

Postscript Color Matching
This uses PostScript Color Rendering Dictionaries built-in to the printer, and affects both RGB and CMYK data.

Print In Grayscale
No color will print. The printer will interpret all colors as a variation of grays.

Color Setting

This option allows you to select your color settings as they appear on your monitor.

Digital Camera
✓ Monitor(6500K) – Auto
Monitor(6500K) – Perceptual
Monitor(6500K) – Vivid
Monitor(9300K)
sRGB
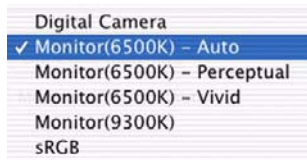
1. Select the option desired based upon the information below.

Digital Camera
Optimized for printing photographs taken with a digital camera. This tends to produce prints with lighter and brighter colors. For some photographs, other settings may be better depending on the subjects

and the conditions under which they were taken. Vivid or Digital Camera settings produce brightest colors.

Monitor(6500k) Auto
The default setting that selects the best options for your printer. This selection works best for office situations.

Monitor (6500k) Perceptual
Optimized for printing photographs when using a monitor with a color temperature of 6500K, This is best for printing photographic images.

Monitor (6500k) Vivid
Optimized for printing bright colors when using a monitor with a color temperature of 6500K. Ideal for office graphics and text. Vivid or Digital Camera settings produce brightest colors.

Monitor (9300k)
Optimized for printing photographs when using a monitor with a color temperature of 6500K.

sRGB
Optimized for matching specific colors, such as a company logo color. This option attempts to simulate RGB color. The colors within the printer's color gamut are printed without any modification, and only colors that fall outside the printable colors are modified.

Feature Set 2
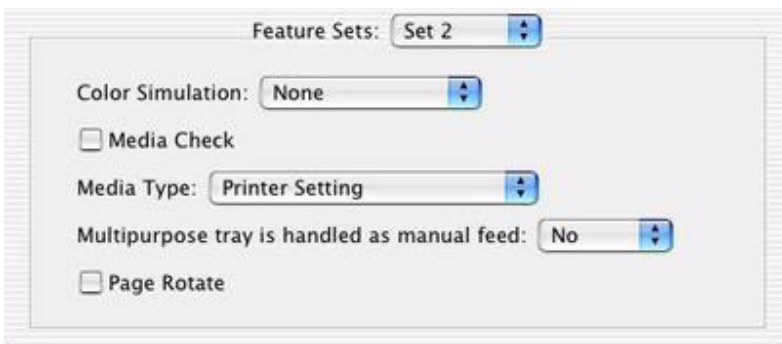
The tab's features are explained below.

Color Simulation

Affects **CMYK output only** and is usually used in offset printer environments only.
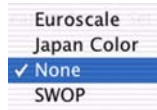
```
         Euroscale
         Japan Color
    ✓ None
         SWOP
```

This option simulates what the output will look on a printing press using the ink types SWOP, Euroscale or Japan. If using CMYK Ink Simulation, it is recommended that you switch off all other Printer Color Matching by selecting the No Color Matching option under the Color Match option in the printer driver.

1. Select the option desired.

Media Check
Sets whether the printer checks the matching of paper size to that of the tray. Only standard sizes are checked.

Media Type
Many options are available for selecting the thickness of the paper type. Normally the **Printer Setting** is sufficient.

```
         Heavy(28-32lb)
         Labels1
         Labels2
         Light(17lb)
         Medium(20-24lb)
    ✓ Printer Setting
         Transparency
         Ultra-Heavy(33-54lb)
```
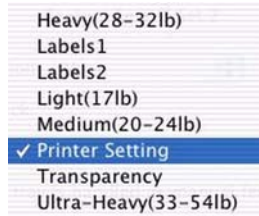
1. Select your desired Media Type. Any option, other than Printer Setting, will override the setting at the printer.

Multipurpose tray is handled as manual feed
Select the option desired: the default is No.

Page Rotate
Checking this will rotate the printed material on the page 180 degrees.
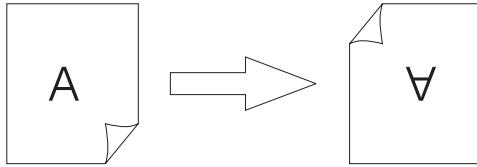
Feature Set 3
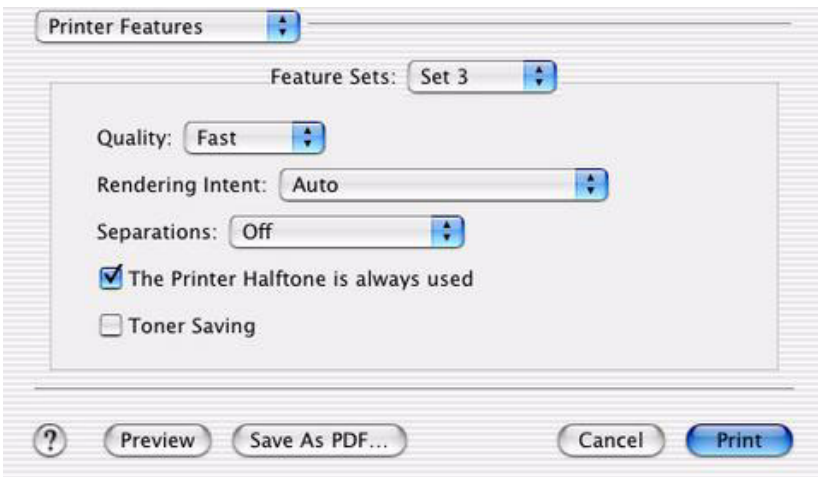
The tab's features are explained below.

Quality
A straightforward selection of the print quality desired.
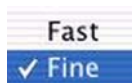
• **Fast**: low resolution, fast speed: choose this for quick proofing of drafts.

• **Fine** (the default): high resolution, slower speed: Provides optimum results when printing graphics.

1. Select your desired print quality.

Rendering Intent

When a document is printed, a conversion takes place from the document's color space to the printer color space. The rendering intents are essentially a set of rules that determine how this color conversion takes place.

1. Select the option desired.

```
  Absolute Colorimetric
✓ Auto
  Perceptual
  Relative Colorimetric
  Saturation
```

Absolute Colorimetric
Best for printing solid colors and tints, such as Company logos etc. Matches colors common to both devices exactly, and clips the out of gamut colors to their nearest printed equivalent. Tries to print white as it appears on screen. The white of a monitor is often very different from paper white, so this may result in color casts, especially in the lighter areas of an image.

Auto
The best default select as this selects the optimal settings for a general office environment.

Perceptual
Best choice for printing photographs. Compresses the source gamut into the printer's gamut whilst maintaining the overall appearance of an image. This may change the overall appearance of an image as all the colors are shifted together.

Relative Colorimetric
Good for proofing CMYK color images on a desktop printer. Much like Absolute Colorimetric, except that it scales the source white to the (usually) paper white; i.e. unlike Absolute Colorimetric, this attempts to take the paper white into account.

Saturation

Best choice for printing bright and saturated colors if you don't necessarily care how accurate the colors are. This makes it the recommended choice for graphs, charts, diagrams etc. Maps fully saturated colors in the source gamut to fully saturated colors in the printer's gamut.

Separations

This option affects output only, allowing you to print all colors or separate plates.

```
CMY
CMYK
✓ Off
OnlyBlack
OnlyCyan
OnlyMagenta
OnlyYellow
```
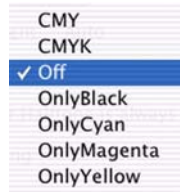
1. Select the option desired.

NOTE

You must select a non-generic PostScript Printer Description (PPD) file for a printer that supports color separations.

Printer Halftone

This option prevents the halftone of a high-end graphic application from printing.

☑ The Printer Halftone is always used

1. Click on the checkbox to enable the option.

Toner Saving

☐ Toner Saving

Checking this will enable toner saving but reduce print quality.

General Printing Directions

What follows are descriptions of common printing issues common to the Macintosh environment. This section does not attempt to cover all the options that might occur, but rather, the typical printing operations that can benefit from detailed descriptions. The settings selected here are document specific only; meaning, the setting selected will apply only to the current print job.

You can also refer to your Macintosh online help or manual for further information.

Collating

Collating can be carried out with or without a hard disk drive installed. However, installing an HDD will achieve greater performance.

If the software application being used has a collate print option, it is recommended to use only one collate option to prevent any conflicts in printing, i.e. collate from the software application or collate from the printer driver.

The following instructions explain how to select collating using a printer driver.

1. To access, first select your desired printer from an application using **File** → **Print**..

2. The **Copies & Pages** dialog box should already be displayed. If not, then select **Copies & Pages** from the menu.
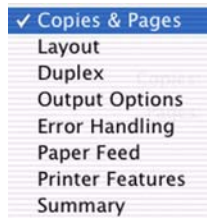
3. From the General screen, click the button next to **Collated** to enable the function.
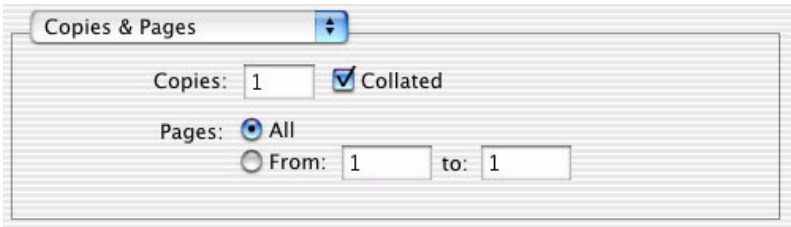
Copies & Pages ⬍	
Copies: 1 ☑ Collated	
Pages: ⦿ All	
○ From: 1 to: 1	

Multiple Pages on One Sheet

1. To access, first select your desired printer from an application using **File** → **Print**..

2. Then open the drop-down menu at left and select **Layout**.
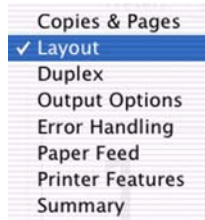
Copies & Pages
✓ Layout
Duplex
Output Options
Error Handling
Paper Feed
Printer Features
Summary

3. From the Layout screen, select the options desired.

Layout ⬍	
1 2 \ 3 4	Pages per Sheet: 4 ⬍ \ Layout Direction: ⃞ ⃞ ⃞ ⃞ \ Border: Single hairline ⬍
? (Preview) (Save As PDF...)	(Cancel) (Print)
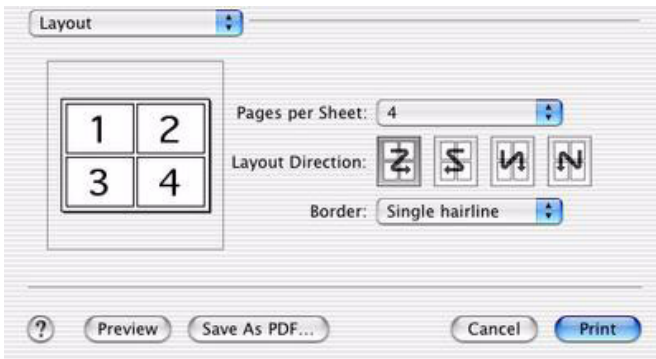
  a. For Multiple Pages, access **Pages per sheet.**

  b. Select the desired **Layout Direction**.

  c. Select a **Border** between the sheets, if desired.

Duplex

1. To access, first select your desired printer from an application using **File → Print**..

2. Then open the drop-down menu at left and select **Duplex**.

Copies & Pages
Layout
✓ Duplex
Output Options
Error Handling
Paper Feed
Printer Features
Summary
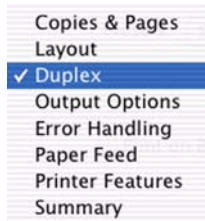
3. From the **Duplex** screen, select the options desired.

Duplex

☑ Print on Both Sides   Binding:

?   Preview   Save As PDF...   Cancel   Print
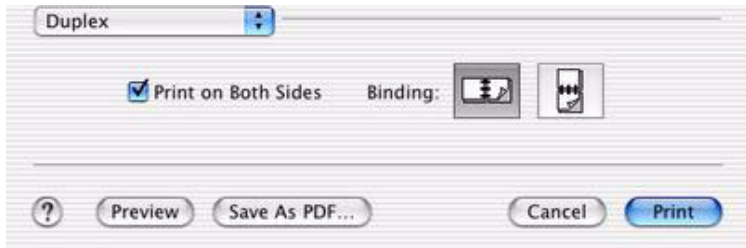
a. For Duplexing (printing on both sides of the sheet), select **Print on Both Sides**.

b. Select which **Binding** you prefer. Normally, the first option is the default.

NOTES

• **Duplex printing can only be carried out on standard paper sizes and paper weights between 20 and 28 lb. (75 and 105 g/m^2).**

• **The optional duplex unit must be installed in the printer and enabled before duplex printing can be carried out.**

• **Paper must be loaded into the paper tray with the print side facing upwards.**

Paper Feed/Type Select

The Paper Feed option allows the selection of different types of paper or trays. The options selected affect only the current document being printed.

1. To access, first select your desired printer from an application using **File → Print**.

2. Then open the drop-down menu at left and select **Paper Feed**.

```
Copies & Pages
Layout
Duplex
Output Options
Error Handling
✓ Paper Feed
Printer Features
Summary
```
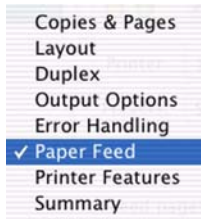
3. From the screen, click the arrows button to select the desired option.

```
Paper Feed          ⬍

     Feed pages from:   Auto Select        ⬍

 ?   ( Preview )  ( Save As PDF... )        ( Cancel )  ( Print )
```
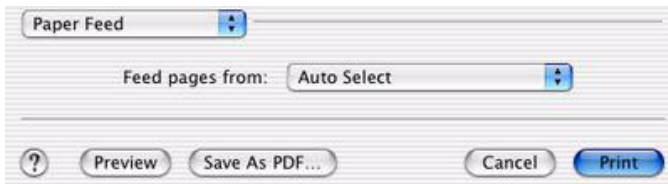
4. From the various options presented, make your desired selection.

```
✓ Auto Select
  Bond Paper
  Card Stock
  Labels
  Letterhead
  Multi-Purpose Tray
  Plain Paper
  Recycled Paper
  Rough Paper
  Transparency
  Tray 1
  Tray 2
```
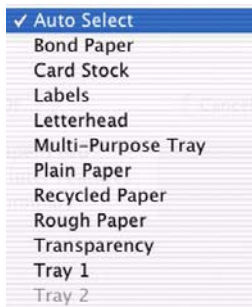
Auto Select
If you have identical paper stock loaded in the Multi-Purpose Tray or the optional Second Paper Tray, you can have the printer automatically switch to the other tray when the current tray runs out of paper.

Paper Options
When you select a paper-type option, the printer automatically accesses the proper tray. For example, when Labels is selected, the printer will pull from the Multipurpose tray where the labels should be inserted.

Tray Options
Select the drawer desired for the current print job.

Menu Functions

This section lists the menus accessed via the controls on the printer's operator panel and displayed in the LCD window.

How To Make Changes in The Menus
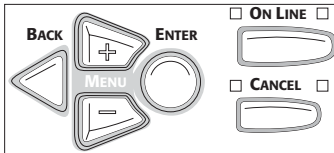
1. Press **+** to enter the menu mode.

2. Press **+** or **–** to scan through the available menus until the menu you wish to enter appears on the display.

NOTE

The menus and their various listings will vary depending on which options you have installed on your printer.

---

3. Press **ENTER** to enter the menu.

4. Use **+**/ **–** to move up and down through the items in the selected menu. When the item you want to change is displayed, press **ENTER** to edit that item.

5. Use **+**/ **–** to move up and down through the available settings for this item.

6. When the setting you wish to use appears on the display, press **ENTER**.
An asterisk (*) appears next to the setting, and the setting flashes.

7. To finish:

    a. If you are through making settings in the menu, press **ON LINE** to engage the setting and exit the menu.

    b. If you wish to make additional changes in the menu, press **BACK** to engage the setting.

        – To change another setting in the same menu, use **MENU +/ MENU –** to move through the list of menu items to the one you wish to change, then follow steps 5 though 7.

        – To change the setting for an item in a different menu, press **BACK** again, then follow steps 2 through 7.

For Example:

To engage duplex printing (default setting is OFF):

1. Press **MENU +** to enter the menu mode.

2. Press **MENU +** and/or **MENU –** repeatedly until you see

PRINT MENU

3. Press **ENTER** to go into the Print Menu.

COPIES	
	1*

4. Press **MENU +** and/or **MENU –** repeatedly until you see

DUPLEX	
OFF	*

5. Press **ENTER** to select this item.

6. Press **MENU +** to change the setting to ON:

DUPLEX
ON

The second line of the display begins flashing.

7. Press **ENTER** to select the new setting:

DUPLEX
ON   *

An asterisk appears on the second line of the display.

8. Press **ON LINE** to engage the new setting and to exit the menu.
The printer returns to standby mode.

Summary of Menu Defaults

Menu Defaults

Note: Menus/Items with a dagger (†) only appear when the appropriate option (e.g., Hard Disk Drive, Duplex Unit, Second Paper Tray, etc.) is installed.

Menu	Item	Default Setting
PRINT JOBS MENU†	ENTER PASSWORD	****
	SELECT JOB	ALL JOBS
INFORMATION MENU	PRINT MENU MAP	[EXECUTE]
	PRINT FILE LIST	[EXECUTE]
	PRINT PCL FONT	[EXECUTE]
	PRINT PSE FONT	[EXECUTE]
	PRINT PPR FONT	[EXECUTE]
	PRINT FX FONT	[EXECUTE]
	PRINT ERROR LOG	[EXECUTE]
SHUTDOWN MENU†	SHUTDOWN START	[EXECUTE]
PRINT MENU	COPIES	1
	DUPLEX	OFF
	PAPER FEED	TRAY1
	AUTO TRAY SWITCH	ON
	TRAY SEQUENCE	DOWN
	MP TRAY USAGE	DO NOT USE
	MEDIA CHECK	ENABLE
	RESOLUTION	600x1200DPI
	TONER SAVE MODE	OFF
	MONO-PRINT SPEED	AUTO
	ORIENTATION	PORTRAIT
	LINES PER PAGE	60 LINES
PRINT MENU (cont.)	EDIT SIZE	CASSETTE SIZE

Menu Defaults (continued)

Note: Menus/Items with a dagger (†) only appear when the appropriate option (e.g., Hard Disk Drive, Duplex Unit, Second Paper Tray, etc.) is installed.

Menu	Item	Default Setting
MEDIA MENU	TRAY1 PAPERSIZE	LETTER
	TRAY1 MEDIATYPE	PLAIN
	TRAY1 MEDIAWEIGHT	MEDIUM
	TRAY2 PAPERSIZE†	LETTER
	TRAY2 MEIDATYPE†	PLAIN
	TRAY2 MEDIAWEIGHT†	MEDIUM
	MP TRAY PAPERSIZE	LETTER
	MP TRAY MEDIATYPE	PLAIN
	MP TRAY MEDIAWEIGHT	MEDIUM
	UNIT OF MEASURE	INCH
	X DIMENSION	8.5 INCH
	Y DIMENSION	11 INCH
COLOR MENU	DENSITY CONTROL	AUTO
	ADJUST DENSITY	[EXECUTE]
	COLOR TUNING	PRINT PATTERN
	C HIGHLIGHT	0
	C MID-TONE	0
	C DARK	0
	M HIGHLIGHT	0
	M MID-TONE	0
	M DARK	0
	Y HIGHLIGHT	0
	Y MID-TONE	0
	Y DARK	0
COLOR MENU (cont.)	K HIGHLIGHT	0

Menu Defaults (continued)

Note: Menus/Items with a dagger (†) only appear when the appropriate option (e.g., Hard Disk Drive, Duplex Unit, Second Paper Tray, etc.) is installed.

Menu	Item	Default Setting
	K MID-TONE	0
	K DARK	0
	C DARKNESS	0
	M DARKNESS	0
	Y DARKNESS	0
	K DARKNESS	0
	AJST REGSTRATION	[EXECUTE]
	C REG FINE AADJST	0
	M REG FINE AJST	0
	Y REG FINE AJST	0
	INK SIMULATION	OFF
	UCR	LOW
	CMY100% DENSITY	DISABLE
	CMYK CONVERSION	ON
SYS CONFIG MENU	POW SAVE TIME	60 MIN
	PERSONALITY	AUTO EMULATION
	PARA PS-PROTOCOL	ASCII
	USB PS-PROTOCOL	RAW
	CLRABLE WARNING	ON
	AUTO CONTINUE	OFF
	MANUAL TIMEOUT	60 SEC
	WAIT TIMEOUT	40 SEC
	LOW TONER	CONTINUE

Menu Defaults (continued)

Note: Menus/Items with a dagger (†) only appear when the appropriate option (e.g., Hard Disk Drive, Duplex Unit, Second Paper Tray, etc.) is installed.

Menu	Item	Default Setting
SYS CONFIG MENU (cont.)	JAM RECOVERY	ON
	ERROR REPORT	OFF
	LANGUAGE	ENGLISH
PCL EMULATION	FONT SOURCE	RESIDENT
	FONT NO.	I000
	FONT PITCH	10.00 CPI
	FONT HEIGHT	12.00 POINT
	SYMBOL SET	PC-8
	A4 PRINT WIDTH	78 COLUMN
	WHITE PAGE SKIP	OFF
	CR FUNCTION	CR
	LF FUNCTION	LF
	PRINT MARGIN	NORMAL
	TRUE BLACK	OFF
	PEN WIDTH ADJUST	ON
PPR EMULATION	CHARACTER PITCH	10 CPI
	FONT CONDENSE	12CPI TO 20CPI
	CHARACTER SET	SET-2
	SYMBOL SET	IBM-437
	LETTER O STYLE	DISABLE
	ZERO CHARACTER	NORMAL
	LINE PITCH	6 LPI
	WHITE PAGE SKIP	OFF
	CR FUNCTION	CR

Menu Defaults (continued)

Note: Menus/Items with a dagger (†) only appear when the appropriate option (e.g., Hard Disk Drive, Duplex Unit, Second Paper Tray, etc.) is installed.

Menu	Item	Default Setting
PPR EMULATION (cont.)	LF FUNCTON	LF
	LINE LENGTH	80 COLUMN
	FORM LENGTH	11 INCH
	TOF POSITION	0.0 INCH
	LEFT MARGIN	0.0 INCH
	FIT TO LETTER	ENABLE
	TEXT HEIGHT	SAME
FX EMULATION	CHARACTER PITCH	10 CPI
	CHARACTER SET	SET-2
	SYMBOL SET	IBM-437
	LETTER O STYLE	DISABLE
	ZERO CHARACTER	NORMAL
	LINE PTICH	6 LPI
	WHITE PAGE SKIP	OFF
	CR FUNCTION	CR
	LINE LENGTH	80 COLUMN
	FORM LENGTH	11 INCH
	TOF POSITION	0.0 INCH
	LEFT MARGIN	0.0 INCH
	FIT TO LETTER	ENABLE
	TEXT HEIGHT	SAME
PARALLEL MENU (Not used for Mac)	PARALLEL	ENABLE
	BI-DIRECTION	ENABLE
	ECP	ENABLE

Menu Defaults (continued)

Note: Menus/Items with a dagger (†) only appear when the appropriate option (e.g., Hard Disk Drive, Duplex Unit, Second Paper Tray, etc.) is installed.

Menu	Item	Default Setting
PARALLEL MENU (Not used for Mac)	ACK WIDTH	NARROW
	ACK/BUSY TIMING	ACK IN BUSY
	I-PRIME	DISABLE
	OFFLINE RECEIVE	DISABLE
USB MENU	USB	ENABLE
	SOFT RESET	DISABLE
	SPEED	480Mbps
	OFFLINE RECEIVE	DISABLE
NETWORK MENU	TCP/IP	ENABLE
	NETBEUI	ENABLE
	NETWARE	ENABLE
	ETHERTALK	ENABLE
	FRAME TYPE	AUTO
	IP ADDRESS SET	AUTO
	IP ADDRESS	192.168.100.100
	SUBNET MASK	255.255.255.000
	GATEWAY ADDRESS	192.168.100.254
	WEB/IPP	ENABLE
	TELNET	ENABLE
	FTP	ENABLE
	SNMP	ENABLE
	LAN	NORMAL
	HUB LINK SETTING	AUTO NEGOTIATE

Menu Defaults (continued)

Note: Menus/Items with a dagger (†) only appear when the appropriate option (e.g., Hard Disk Drive, Duplex Unit, Second Paper Tray, etc.) is installed.

Menu	Item	Default Setting
MEMORY MENU†	RECEIVE BUF SIZE	AUTO
	RESOURCE SAVE	OFF
DISK MAINTENANCE†	HDD INITIALIZE	[EXECUTE]
	PARTITION SIZE	Not Applicable
	HDD FORMATTING	[EXECUTE]
SYS ADJUST MENU†	X ADJUST	0.00 MILLIMETER
	Y ADJUST	0.00 MILLIMETER
	DUPLEX X ADJUST	0.00 MILLIMETER
	DUPLEX Y ADJUST	0.00 MILLIMETER
	PCL TRAY2 ID#†	5
	PCL MP TRAY ID#	4
	DRUM CLEANING	OFF
	HEX DUMP	[EXECUTE]
MAINTENANCE MENU	MENU RESET	[EXECUTE]
	SAVE MENU	[EXECUTE]
	POWER SAVE	ENABLE
	PAPER BLACK SET	0
	PAPER COLOR SET	0
	TRNSPR BLACK SET	0
	TRANSPR COLOR SET	0
USAGE MENU	TRAY1 PAGE COUNT	nnnn
	TRAY2 PAGE COUNT†	nnnn

Menu Defaults (continued)

Note: Menus/Items with a dagger (†) only appear when the appropriate option (e.g., Hard Disk Drive, Duplex Unit, Second Paper Tray, etc.) is installed.

Menu	Item	Default Setting
	MPT PAGE COUNT	nnnn
	COLOR PAGE COUNT	nnnn
USAGE MENU (cont)	MONO PAGE COUNT	nnnn
	K DRUM LIFE	REMAINING nn%
	C DRUM LIFE	REMAINING nn%
	M DRUM LIFE	REMAINING nn%
	Y DRUM LIFE	REMAINING nn%
	BELT LIFE	REMAINING nn%
	FUSER LIFE	REMAINING nn%
	K TONER	REMAINING nn%
	C TONER	REMAINING nn%
	M TONER	REMAINING nn%
	Y TONER	REMAINING nn%

Printer Menus

Print Jobs Menu

This menu only appears if you have the optional Hard Disk Drive installed.

Item	Action	Explanation
ENTER PASSWORD	****	Use **MENU +** and **MENU –** to enter a digit of the password, then press ENTER to progress to the next digit.
SELECT JOB	NO JOBS **ALL JOBS** FILE NAME #1 … FILE NAME #n	Select the job you wish to print.

Information Menu

Item	Action	Explanation
PRINT MENU MAP	EXECUTE	Prints the MenuMap (menu listing) with current settings shown. Information about your printer is also shown at the top of each MenuMap page.
PRINT FILE LIST	EXECUTE	Prints a listing of the files stored in the flash memory and on the optional Hard Disk Drive (see "Hard Disk Drive" on page 155).
PRINT PCL FONT	EXECUTE	Prints a list of internal PCL fonts, plus those stored in ROM (slot 0), flash memory and on the optional Hard Disk Drive (see "Hard Disk Drive" on page 155).
PRINT PSE FONT	EXECUTE	Prints a list of internal Postscript emulation fonts.
PRINT PPR FONT	EXECUTE	Prints a list of internal IBM ProPrinter III XL emulation fonts, including any downloaded to flash memory or the optional Hard Disk Drive (see "Hard Disk Drive" on page 155).
PRINT FX FONT	EXECUTE	Prints a list of internal Epson FX emulation fonts, including any downloaded to flash memory or the optional Hard Disk Drive (see "Hard Disk Drive" on page 155).
PRINT ERROR LOG	EXECUTE	Prints a listing of errors stored in the printer's memory.

Print Menu
Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
COPIES	**1** to 999	Enter the number of copies of a document to be printed.
DUPLEX	ON **OFF**	Turns the duplex (2-sided) printing function on or off *if this option is installed*.
PAPER FEED	**TRAY1** TRAY2 MP TRAY	Selects the default tray for paper feed.
AUTO TRAY SWITCH	ON OFF	If two trays contain identical print media, the printer can switch to an alternate tray when the current tray runs out in the middle of a print job.
TRAY SEQUENCE	**DOWN** UP PAPER FEED TRAY	Sets the sequence in which the printer will seek an alternate tray with the same media size should the currently selected tray run out of media while printing a job.
MP TRAY USAGE	**DO NOT USE** WHEN MISMATCH XXX	If a document to be printed demands a paper size not installed in the selected tray, the printer can automatically feed from the Multi-Purpose Tray instead. If this function is not enabled, the printer will stop and request that the correct size be loaded.
MEDIA CHECK	**ENABLE** DISABLE	Set to DISABLE if you do not wish the printer to check to see if the size paper loaded in the selected tray matches that required for the document being printed.

Print Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
RESOLUTION	**600x1200DPI** 600DPI	If you don't need 600x1200DPI resolution, switch to 600DPI to print faster, to reduce the amount of printer memory and toner used.
TONER SAVE MODE	**OFF** ON	Reduces the amount of toner used for imaging. Toner saving gives lighter prints but is more economical.
MONO-PRINT SPEED	**AUTO** COLOR SPEED NORMAL SPEED	Sets the print engine speed. If you are printing only color documents, switch to COLOR SPEED. If you are printing only monochrome documents, switch to NORMAL SPEED.
ORIENTATION	**PORTRAIT** LANDSCAPE	Selects default page orientation: Portrait: Landscape:
LINES PER PAGE	5 to 128 LINES Default = **60 LINES**	Sets the number of lines of text per page when raw text is received from systems other than Windows.

Print Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
EDIT SIZE	**CASSETTE SIZE** LETTER EXECUTIVE LEGAL14 LEGAL13.5 LEGAL13 A4, A5, A6, B5 CUSTOM COM-9 ENVELOPE COM-10 ENVELOPE MONARCH ENV DL ENVELOPE C5 ENVELOPE	Sets the size of the printable page area to match the size of paper in use. This is not the same as the physical paper size, which is always slightly larger.

Media Menu

Item	Settings	Explanation
TRAY1 PAPERSIZE	A4, A5, A6, B5 LEGAL14 LEGAL13.5 LEGAL13 **LETTER** EXECUTIVE CUSTOM	Selects the size of paper loaded in Tray 1.
TRAY1 MEDIATYPE	**PLAIN** LETTERHEAD BOND RECYCLED ROUGH	Selects the type of media loaded in Tray 1. This will help the printer to adjust its internal operating parameters, such as engine speed and fusing temperature.
TRAY1 MEDIAWEIGHT	LIGHT **MEDIUM** HEAVY	Adjusts the printer for the weight of paper stock loaded in the tray. (See "Media Weight Designations" on page 11.)
TRAY2 PAPERSIZE†	A4, A5, B5, LEGAL14 LEGAL13.5 LEGAL13 **LETTER** EXECUTIVE CUSTOM	Selects the size of paper loaded in optional Tray 2.
TRAY2 MEDIATYPE†	**PLAIN** LETTERHEAD BOND RECYCLED ROUGH	Selects the type of media loaded in optional Tray 2.

Media Menu (continued)

Notes:

- Factory default settings are shown in **bold**.

- Menus/Items with an asterisk (†) only appear when the appropriate option (e.g., Hard Disk Drive, Duplex Unit, Second Paper Tray, etc.) is installed.

Item	Settings	Explanation
TRAY2 MEDIAWEIGHT†	LIGHT **MEDIUM** HEAVY	Adjusts the printer for the weight of paper stock loaded in optional Tray 2.
MPT PAPERSIZE	**LETTER** EXECUTIVE LEGAL14 LEGAL13.5 LEGAL13 A4, A5, A6, B5 CUSTOM COM-9 ENVELOPE COM-10 ENVELOPE MONARCH ENV DL ENVELOPE C5 ENVELOPE	Selects the size of paper to be fed from the Multi-Purpose Tray.
MPT PAPERTYPE	**PLAIN** LETTERHEAD TRANSPARENCY LABELS BOND RECYCLED CARD STOCK ROUGH GLOSSY	Selects the type of media to be fed from the Multi-Purpose Tray so that the printer can adjust its internal parameters for the media.
MPT MEDIAWEIGHT	**MEDIUM** HEAVY ULTRA HEAVY	Selects the media weight to be fed from the Multi-Purpose Tray.
UNIT OF MEASURE	MILLIMETER **INCH**	Selects the unit of measure for the next two items.
X-DIMENSION	3 to 8.5 INCH Default = **8.5 INCH**	Selects the width of paper defined by the "CUSTOM" settings.

Media Menu (continued)

Item	Settings	Explanation
Y-DIMENSION	5 to 35.5 INCH Default = **11 INCH**	Selects the length of paper defined by the "Custom" settings. Note that media of up to 47" (1.2 m) in length can be fed one sheet at a time from the Multi-Purpose Tray-for banner printing.

Color Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
DENSITY CONTROL	**AUTO** MANUAL	AUTO = image density is automatically adjusted: • at power on • when a new image drum or toner cartridge is installed • at intervals of 100, 300 and 500 drum counts Auto adjustment takes up to 55 seconds. Switch to manual only if you wish to initiate Density Control manually using the printer menu.
AUTO DENSITY	EXECUTE	Selecting this will perform the auto density set up.
COLOR TUNING	PRINT PATTERN	Prints the pattern for the user to manually adjust TRC. Ordinarily this function is not needed because TRC is automatically adjusted. See "Setting Color Tuning from The Front Panel" on page 121.

Color Menu (continued)

Item	Settings	Explanation
C HIGHLIGHT C MID-TONE C DARK M HIGHLIGHT M MID-TONE M DARK Y HIGHLIGHT Y MID-TONE Y DARK K HIGHLIGHT K MID-TONE K DARK	-3 to + 3 in increments of 1 Default = **0**	Adjusts image density for each color component (cyan, magenta, yellow and black). Normal setting is 0. See "Setting Color Tuning from The Front Panel" on page 121.
C DARKNESS M DARKNESS Y DARKNESS K DARKNESS	-3 to + 3 in increments of 1 Default = **0**	Adjusts darkness of each color component (cyan, magenta, yellow and black). Normal setting is 0.
AJST REGSTRATION	EXECUTE	Performs automatic color registration adjustment. Normally this is done at power on and when the top cover is opened and then closed. This process accurately aligns the cyan, magenta and yellow images to the black image.
C REG FINE ADJUST M REG FINE ADJUST Y REG FINE ADJUST	-3 to + 3 in increments of 1 Default = **0**	Performs fine adjustment of image timing in relation to the black image component.
INK SIMULATION	**OFF** SWOP EUROSCALE JAPAN	Selects from a range of industry standard color swatches.
UCR	**LOW** MEDIUM HIGH	If paper curl occurs when printing pages with large areas of black print, changing this setting may help reduce the curl.

Color Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
CMY 100% DENSITY	**DISABLE** ENABLE	When enabled, black areas are produced using 100% C, M, and Y instead of black. This results in a glossier finish.
CMYK CONVERSION	**ON** OFF	Postscript emulation only. Switch to OFF to shorten the processing time for CMYK data. Not available when the Ink Simulation menu item is set to a value other than OFF (the default).

System Configuration Menu

Items	Settings	Explanation
POW SAVE TIME	5 15 30 **60** 240	Adjusts the time before the printer automatically switches into power saving mode. In this mode power consumption is reduced, but when a job is sent the printer will require a warm-up time of up to 1 minute before printing can begin.
PERSONALITY	**AUTO** PCL IBM PPR III XL EPSON FX PS3 EMULATION	This item selects which industry standard emulation your printer uses. When set to AUTO, incoming data is examined and the correct emulation is automatically selected each time a print job is received.
PARA PS-PROTOCOL	**ASCII** RAW	Sets the protocol to be used for Postscript emulation print jobs through the parallel interface.
USB PS-PROTOCOL	**RAW** ASCII	Sets the protocol to be used for Postscript emulation print jobs through the USB interface.
NET PS-PROTOCOL	RAW ASCII	Sets the protocol to be used for Postscript emulation print jobs over the network.
CLEARABLE WARNING	**ON** JOB	When ON, non-critical warnings, such as requests for a different paper size, can be cleared by pressing the **ON LINE** button. When set to JOB, they are only cleared when the print job resumes.
AUTO CONTINUE	ON **OFF**	Determines whether or not the printer will automatically recover from a memory overflow condition.
MANUAL TIMEOUT	OFF 30 **60**	Specifies how many seconds the printer will wait for paper to be fed before cancelling the job.

System Configuration Menu (continued)

Note: Factory default settings are shown in **bold**.

Items	Settings	Explanation
WAIT TIMOUT	5 to 300 SEC Default = **40** seconds	Specifies how many seconds the printer will wait when received data pauses before forcing a page eject. In Postscript emulation mode the job will be cancelled if timeout occurs.
LOW TONER	**CONTINUE** STOP	Specifies whether the printer should continue printing after a low toner condition is detected. If you change this to STOP, when low toner is detected, the printer goes off line.
JAM RECOVERY	**ON** OFF	Specifies whether the printer should perform jam recovery after a paper jam has occurred. If ON, the printer will attempt to print again any pages lost due to a paper jam once the jam has been cleared.
ERROR REPORT	ON **OFF**	Change this to ON, if you wish the printer to print the error details when a Postscript emulation error occurs.
LANGUAGE	**English** German French Italian Spanish Swedish Norwegian Danish Dutch Turkish Portuguese Polish	Sets the language used for the display window and printed reports.

PCL Emulation Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
FONT SOURCE	**RESIDENT** / DIMM0 / DIMM1 / DOWNLOADED	Specifies the location of the PCL default font. Change the setting appropriately if additional fonts are installed in the expansion ROM slot or additional fonts have been downloaded to the printer as permanent fonts.
FONT NO.	**I000** / C001 / S001	Sets the current default font number from the currently selected source: I = internal (resident font); I000 = Courier. C = Font stored in the printer's Flash memory. S = downloaded soft font, stored on the printer's internal hard disk drive. *Applies only to printers with the optional hard disk drive installed.*
FONT PITCH	0.44 to 99.99 CPI Default = **10.00** CPI	Sets the character width of the default font in characters per inch (CPI). This is only available when the selected font is fixed width and scalable.

PCL Emulation Menu (continued)
Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
SYMBOL SET	**PC-8**, PC-8 Dan/Nor, PC-8 TK, PC-775, PC-850, PC-852, PC-855, PC-857 TK, PC-858, PC-866, PC-869, PC-1004, Pi Font, Plska Mazvia, PS Math, PS Text, Roman-8, Roman-9, Roman Ext, Serbo Croat1, Serbo Croat2, Spanish, Ukrainian, VN Int'l, VN Math, VN US, Win 3.0, Win 3.1 Blt, Win 3.1 Cyr, Win 3.1 Grk, Win 3.1 Heb, Win 3.1 L1, Win 3.1 L2, Win 3.1 L5, Wingdings, Dingbats MS, Symbol, OCR-A, OCR-B, HP ZIP, USPSFIM, USPSSTP, ISO Swedish1, ISO Swedish2, ISO Swedish3, ISO-2 IRV, ISO-4 UK, ISO-6 ASC, ISO-10 S/F, ISO-11 Swe, ISO-14 JASC, ISO-15 Ita, ISO-16 Por, ISO-17 Spa, ISO-21 Ger, ISO-25 Fre, ISO-57 Chi, ISO-60 Nor, ISO-61 Nor, ISO-69 Fre, ISO-84 Por, ISO-85 Spa Kamenicky, Legal, Math-8, MC Text, MS Publish, PC Ext D/N, PC Ext US, PC Set1, PC Set2 D/N, PC Set2 US, USPSZIP, Bulgarian, CWI Hung, DeskTop, German, Greek-437, Greek-437 Cy, Greek-928, Hebrew NC, Hebrew OC, IBM-437, IBM-850, IBM-860, IBM-863, IBM-865, ISO Dutch, ISO L1, ISO L2, ISO L5, ISO L6, ISO L9	PCL symbol set. If the font source and number are changed to one which does not support the selected symbol set, this must be changed to an available symbol set for that font.

PCL Emulation Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
A4 PRINT WIDTH	**78 COLUMN** 80 COLUMN	If you are printing a letter size document on an A4 size sheet, select 80 column. This condenses the print to fit on the slightly narrower A4 sheet, without changing the line breaks.
WHITE PAGE SKIP	**OFF** ON	Selects whether blank pages are printed or not.
CR FUNCTION	**CR** CR+LF	Selects whether a received carriage return character also causes a line feed.
LF FUNCTION	**LF** LF+CR	Selects whether a received line feed character also causes a carriage return.
PRINT MARGIN	**NORMAL** 1/5 INCH 1/6 INCH	Sets the non-printable page area. NORMAL is PCL compatible.
TRUE BLACK	**OFF** ON	Selects whether black image data is printed using black toner (ON) or 100% CMY (OFF).
PEN WIDTH ADJUST	ON OFF	When switched ON, emphasizes the pen width to improve the appearance of lines specified with minimum width.

PPR Emulation Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
CHARACTER PITCH	**10 CPI** 12 CPI 17 CPI 20 CPI PROPROTIONAL	Specifies character pitch (characters per inch).
FONT CONDENSE	**12CPI TO 20CPI** 12CPI TO 12CPI	Specifies 12CPI pitch for Condense Mode.
CHARACTER SET	**SET 2** SET 1	Specifies the character set to be used.

PPR Emulation Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
SYMBOL SET	**IBM-437**, IBM-850, IBM-860, IBM-863, IBM-865, PC Set1, PC Ext US, PC Ext D/N, PC Set2 US, PC Set2 D/N, Roma3n-8, ISO L1, PC-8, PC-8 Dan/Nor, PC-850, Legal, ISO-2 IRV, ISO-4 UK, ISO-6 ASC, ISO-10 S/F, ISO-11 Swe, ISO-14 JASC, ISO-15 Ita , ISO-16 Por, ISO-17 Spa, ISO-21 Ger, ISO-25 Fre, ISO-57 Chi, ISO-60 Nor, ISO-61 Nor, ISO-69 Fre, ISO-84 Por, ISO-85 Spa, German, Spanish, ISO Dutch, Roman Ext, ISO Swedish1, ISO Swedish2, ISO Swedish3, VN Int'l, VN US, VN Math, PS Math, PS Text, Math-8, Pi Font, MS Publish, in 3.0, DeskTop, Win 3.1 L1, MC Text, PC-852, Win 3.1 L5, Win 3.1 L2, CWI Hung, PC-857 TK, ISO L2, ISO L5, PC-8 TK, Kamenicky, Hebrew NC, Hebrew OC, Plska Mazvia, ISO L6, Win 3.1 Heb, Win 3.1 Cyr, PC-866, Win 3.1 Grk, PC-869, PC-855, Greek-437, Greek-437 Cy, Greek-737, Greek-928, Serbo Croat2, Ukrainian, Bulgarian, PC-1004, Win 3.1 Blt, PC-775, Serbo Croat1, PC-858, Roman-9, ISO L9	Specifies the symbol set to be used.
LETTER 0 STYLE	**Disable** Enable	Specifies the style that replaces 9B Hex with the letter o and 9D Hex with a zero

PPR Emulation Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
ZERO CHARACTER	**Normal** Slashed	Sets the zero to be slashed or unslashed.
LINE PITCH	**6 LPI** 8 LPI	Specifies the line spacing (lines per inch).
WHITE PAGE SKIP	**OFF** ON	Change this setting to ON if you do not wish to print blank pages. Not available for duplex printing.
CR FUNCTION	**CR** CR+LF	Sets functionality on receipt of CR code.
LF FUNCTION	**LF** LF+CR	Sets functionality on receipt of LF code.
LINE LENGTH	**80 COLUMN** 136 COLUMN	Specifies the number of characters per line.
FORM LENGTH	**11 INCH** 11.7 INCH 12 INCH	Specifies the length of paper.
TOF POSITION	**0.0** to 1.0 INCH, in 0.1-inch increments	Specifies the distance of print from the top edge of the paper.
LEFT MARGIN	**0.0** to 1.0 INCH, in 0.1-inch increments	Specifies the distance of print from the left hand edge of the paper.
FIT TO LETTER	DISABLE **Enable**	Fits print data, equivalent to 11 inches (66 lines), in the LETTER-size printable area.
TEXT HEIGHT	**SAME** DIFF	Sets the height of a character. Change to DIFF if you wish the character height to vary with the Character Pitch setting.

FX Emulation Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
CHARACTER PITCH	**10 CPI** 12 CPI 17 CPI 20 CPI PROPORTIONAL	Specifies character pitch (characters per inch).
CHARACTER SET	**SET 2** SET 1	Specifies which Epson character set is used.

FX Emulation Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
SYMBOL SET	**IBM-437**, IBM-850, IBM-860, IBM-863, IBM-865, PC Set1, PC Ext US, PC Ext D/N, PC Set2 US, PC Set2 D/N, Roman-8, ISO L1, PC-8, PC-8 Dan/Nor, PC-850, Legal, ISO-2 IRV, ISO-4 UK, ISO-6 ASC, ISO-10 S/F, ISO-11 Swe, ISO-14 JASC, ISO-15 Ita , ISO-16 Por, ISO-17 Spa, ISO-21 Ger, ISO-25 Fre, ISO-57 Chi, ISO-60 Nor, ISO-61 Nor, ISO-69 Fre, ISO-84 Por, ISO-85 Spa, German, Spanish, ISO Dutch, Roman Ext, ISO Swedish1, ISO Swedish2, ISO Swedish3, VN Int'l, VN US, VN Math, PS Math, PS Text, Math-8, Pi Font, MS Publish, Win 3.0, DeskTop, Win 3.1 L1, MC Text, PC-852, Win 3.1 L5, Win 3.1 L2, CWI Hung, PC-857 TK, ISO L2, ISO L5, PC-8 TK, Kamenicky, Hebrew NC, Hebrew OC, Plska Mazvia, ISO L6, Win 3.1 Heb, Win 3.1 Cyr, PC-866, Win 3.1 Grk, PC-869, PC-855, Greek-437, Greek-437 Cy, Greek-737, Greek-928, Serbo Croat2, Ukrainian, Bulgarian, PC-1004, Win 3.1 Blt, PC-775, Serbo Croat1, PC-858, Roman-9, ISO L9	Specifies a symbol set.
LETTER 0 STYLE	DISABLE ENABLE	Specifies the style that replaces 9B Hex with letter o and 9D Hex with a zero

FX Emulation Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
ZERO CHARACTER	NORMAL SLASHED	Sets the zero to be slashed or unslashed.
LINE PITCH	**6 LPI** 8 LPI	Specifies the line spacing (lines per inch).
WHITE PAGE SKIP	**OFF** ON	Change this setting to ON if you do not wish to print blank pages Not available for duplex printing.
CR FUNCTION	**CR** CR+LF	Sets functionality on receipt of CR code.
LINE LENGTH	**80 COLUMN** 136 COLUMN	Specifies the number of columns that will print on a page (characters per line).
FORM LENGTH	**11 inch**; 11.7 inch 12 inch	Specifies the length of print media.
TOF POSITION	**0.0** to 1.0 inch in 0.01-inch increments	Specifies the distance of print from the top edge of the paper.
LEFT MARGIN	**0.0** to 1.0 inch in 0.01-inch increments	Specifies the distance of print from the left hand edge of the paper.
FIT TO LETTER	DISABLE ENABLE	Sets the printing mode that can fit print data, equivalent to 11 inches (66 lines), in the LETTER-size printable area.
TEXT HEIGHT	SAME DIFF	Sets the height of a character. Change to DIFF if you wish the character height to vary with the Character Pitch setting.

USB Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
USB	**ENABLE** DISABLE	Enables or disables operation of the USB port.
SOFT RESET	ENABLE **DISABLE**	Enables or disables the SOFT RESET command.
SPEED	**480Mbps** 12Mbps	Sets the maximum transfer speed for the USB interface.
OFFLINE RECEIVE	**DISABLE** ENABLE	Enable = maintains reception without changing the interface signal, even though an alarm occurs. The interface stays open even if the ON LINE button is pressed. The interface issues a BUSY signal only when the receive buffer is full.

Network Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
TCP/IP	**ENABLE** DISABLE	Enables or disables this network protocol.
NETBEUI	**ENABLE** DISABLE	Enables or disables this network protocol.
NETWARE	**ENABLE** DISABLE	Enables or disables this network protocol.
ETHERTALK	**ENABLE** DISABLE	Enables or disables this network protocol.

Network Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
FRAME TYPE	**AUTO** 802.2 802.3 ETHERNET II SNAP	Selects the Ethernet MAC layer frame type.
IP ADDRESS SET	**AUTO** MANUAL	Change this to Manual to specify the IP address through the front panel.(see next entry) Required for non-DHCP networks.
IP ADDRESS	xxx.xxx.xxx.xxx Default = 192.168.100.100	Current assigned IP address. To change: • Press **ENTER**. • Use **+/–** keys to increment first octet. • Press **ENTER** to move on to the next octet. • Use **+/–** keys to increment second octet. • Press **ENTER** to move on to the next octet. • Use **+/–** keys to increment third octet. • Press **ENTER** to move on to the last octet. • Use **+/–** keys to increment 1st octet. • Press **ENTER** to register the new address.
SUBNET MASK	xxx.xxx.xxx.xxx Default = 255.255.255.000	Current assigned subnet mask. To change, proceed as above.
GATEWAY ADDRESS	xxx.xxx.xxx.xxx Default = 192.168.100.254	Current assigned gateway address. To change, proceed as above.
INITIALIZE NIC?	[EXECUTE]	Initializes the network card.
WEB/IPP	**ENABLE** DISABLE	Enables or disables Web config. facility and Internet Printing Protocol. This item will not appear in the menu if TCP/IP is set to DISABLE.

Network Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
TELNET	**ENABLE** DISABLE	Enables or disables Telnet config. facility. This item will not appear in the menu if TCP/IP is set to DISABLE.
FTP	**ENABLE** DISABLE	Enables or disables communication via FTP. This item will not appear in the menu if TCP/IP is set to DISABLE.
SNMP	**ENABLE** DISABLE	Enables or disables SNMP protocol.
LAN	**NORMAL** SMALL	Normal = Global network Small = Local network
HUB LINK SETTING	**AUTO NEGOTIATE** 100BASE-TX FUL 100BASE-TX HALF 10BASE-T FULL 10BASE-T HALF	Sets full or half duplex for communication via a network hub.

CAUTION!

The Disk Maintenance Menu can be used to initialize the printer's internal hard disk drive, to reassign the partition contents, or to reformat the partitions.

Unless you know what you are doing, please avoid this section of the Menu.

It is recommended that disk maintenance be done through the Storage Device Manager software by the System Administrator, or by someone who is knowledgeable in this area.

Disk Maintenance Menu

This menu only appears if the optional Hard Disk Drive is installed in your printer. See "Hard Disk Drive" on page 155.

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
HDD INITIALIZE	[EXECUTE]	Partitions the hard disk and formats each partition. Appears only if hard disk drive is installed.
PARTITION SIZE	[EXECUTE]	If you press **ENTER** to execute this item, the PCL/COMMON menu item appears. If you press **MENU +**, the HDD FORMATION menu item appears.
HDD FORMATING	**PCL** COMMON PSE	Formats the specified petition. *Careful*! This deletes all the items from the specified partition.

System Adjust Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
X ADJUST	-2.00MILLIMETER TO +2.00MILLIMETER Default = **0.00**	Adjusts overall print position horizontally in 0.25 increments.
Y ADJUST	-2.00MILLIMETER TO +2.00MILLIMETER Default = **0.00**	Adjusts overall print position vertically in 0.25 increments.
DUPLEX X ADJUST	-2.00MILLIMETER TO +2.00MILLIMETER Default = **0.00**	Adjusts overall print position of print face horizontally in 0.25 increments.
DUPLEX Y ADJUST	-2.00MILLIMETER TO +2.00MILLIMETER Default = **0.00**	Adjusts overall print position of print face vertically in 0.25 increments.
PCL TRAY2 ID#	1 to 59 Default = **20**	Appears only if the optional Second Paper Tray (see "Second Paper Tray" on page 153) is installed. Sets Tray 2 number for the PCL emulation.
PCL MP TRAY ID#	1 to59; Default = **4**	Sets MP tray number for PCL emulation.
DRUM CLEANING	**OFF** ON	If you are experiencing horizontal white lines on your printed pages, enter the menu and temporarily change this setting to ON, then send a one page print job. This will cause an extra blank sheet to print, cleaning the drum prior to printing. *Careful!* Leaving this set to ON will reduce the image drum life.

System Adjust Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
HEX DUMP	[EXECUTE]	Press **ENTER** to switch the printer to the Hexadecimal Dump mode in which all data received is printed in both Hexadecimal and ASCII format. To return to normal print mode, switch the printer off then on again.

Maintenance Menu

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
MENU RESET	EXECUTE	Resets menus to the default settings.
SAVE MENU	EXECUTE	Saves current menu settings as default values. At confirmation prompt, press **ENTER** to confirm save, or **CANCEL**.
POWER SAVE	**ENABLE** DISABLE	Change this setting to Disable if you do not want the printer to enter the power save mode after the specified time.
PAPER BLACK SET	–2 to +2 in increments of 1 Default = **0**	Used for small adjustment when you experience faded print or light specks / streaking in monochrome printing on white paper. Select a higher value to reduce fading, or a lower value to reduce specks or streaking in high density print areas.
PAPER COLOR SET	–2 to +2 in increments of 1 Default = **0**	As above, but for color printing.
TRANSPR BLACK SET	–2 to +2 in increments of 1 Default = **0**	As above, but for mono printing on transparencies.

Maintenance Menu (continued)

Note: Factory default settings are shown in **bold**.

Item	Settings	Explanation
TRANSPR COLOR SET	–2 to +2 in increments of 1 Default = **0**	As above, but for color printing on transparencies.

Usage Menu

This menu is for information only, and provides an indication of total usage of the printer and the expected life left in its consumable items. This is particularly useful if you do not have a full set of replacement consumables on hand and you need to know how soon you will need them

Item	Explanation
TRAY1 PAGE COUNT	The total number of pages fed from Tray 1.
TRAY2 PAGE COUNT	The total number of pages fed from optional Tray 2. Appears only if the optional Second Paper Tray (see "Second Paper Tray" on page 153) is installed.
MPT PAGE COUNT	The total number of pages fed from the Multi-Purpose Tray.
COLOR PAGE COUNT	The total number of pages printed in color.
MONO PAGE COUNT	The total number of pages printed in monochrome.
K DRUM LIFE C DRUM LIFE M DRUM LIFE Y DRUM LIFE	Percentage of life remaining in these consumable items.
K TONER C TONER M TONER Y TONER	Percentage of life remaining in these consumable items.

Setting Color Tuning from The Front Panel

Important!

- In most cases, using Color Tuning is not necessary as the printer is optimized for color printing at its default settings.
- Once you change these settings, they remain in effect until you go back in and change them.
- To return the settings to the defaults, use the steps below to set each value back to 0 (zero).

You can use the printer's menu to adjust the color intensity for a specific color by adjusting the HIGHLIGHT, MID-TONE and DARK (shadows) Color Tuning Patterns.

- To *increase* the color intensity, use a higher positive setting (default = 0, maximum = +3).
- To *decrease* the color intensity, use a higher negative setting (default = 0, maximum = -3).

For example, to adjust the intensity of the magenta portion:

NOTE

When using the optional Print Job Accounting utility, you cannot print when "Local Print" is set to "No printing" or "No color printing."

1. Print the Color Tuning Pattern:
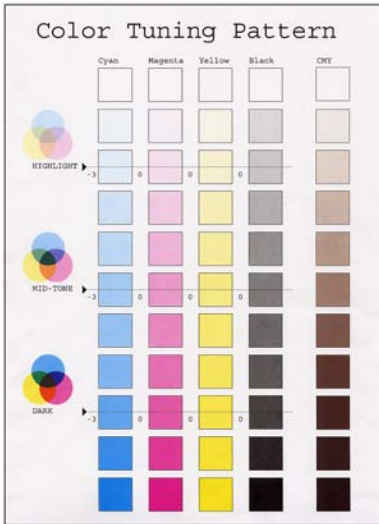
a. Make sure letter-size paper is loaded in the tray.

b. Press **+** repeatedly, until you see

COLOR MENU

c. Press **ENTER**.

d. Press **+** one or more times, until you see

COLOR TUNING
PRINT PATTERN

e. Press **ENTER**.

The Color Tuning Pattern prints and the display reads.

C HIGHLIGHT

                                      0*

2. Adjust the Cyan highlight color.

    a. Press **ENTER** to select the Cyan Highlight item.

    The second line of the display begins flashing.

    b. Press **+** one or more times, until the new value you wish to use displays (e.g., +3).

    c. Press **ENTER**, to select the new value.

    An asterisk (*) appears at the right of the new selection.

    d. Press **BACK** to engage the setting.

    The second line stops flashing.

    e. Press **+**. The display reads

C MID-TONE
0*

3. Adjust the Cyan mid-tone color:

    a. Press **ENTER** to select the Cyan Mid-Tone item.

    The second line of the display begins flashing.

    b. Press **+** one or more times, until the new value you wish to use displays (e.g., +3).

    c. Press **ENTER**, to select the new value.

    An asterisk (*) appears at the right of the new selection.

    d. Press **BACK** to engage the setting.

    The second line stops flashing.

    e. Press **+**. The display reads

C DARK
0*

4. Adjust the Cyan dark color:

    a. Press **ENTER** to select the Cyan Dark item.

    The second line of the display begins flashing.

    b. Press **+** one or more times, until the new value you wish to use displays (e.g., +3).

    c. Press **ENTER**, to select the new value.

    An asterisk (*) appears at the right of the new selection.

    d. Press **BACK** to engage the setting.

    The second line stops flashing.

5. Press **+**.

6. Press **ON LINE** to save the new setting and return the printer to online status

7. Print from your application.

Repeat the above steps until you get the desired cyan color intensity.

NOTE

To adjust these settings for the Magenta, Yellow or Black color intensity, substitute the appropriate color name in the steps above.

Replacing Consumables

- **Toner Cartridge** — Life expectancy approximately 5,000 pages, assuming about 5% coverage, which means that 5% of the addressable dots in an image are printed with this color of toner. See "Toner Cartridge Replacement" on page 219.

NOTE

When installing a toner cartridge in a new image drum, the life expectancy of the cartridge will be reduced by approximately 1,500 pages (at 5% coverage) as the toner charges the new drum.

- **Image Drum** — Life expectancy approximately 15,000 pages, assuming an average of 3 pages per print job. If the average print job is longer than this, the image drums could last longer, but if the average print job is shorter, then image drums will be used more quickly. See "Image Drum Replacement" on page 226.

- T**ransfer Belt** — Life expectancy about 50,000 letter-size pages. See "Belt Unit Replacement" on page 235.

- **Fuser** — Life expectancy about 45,000 letter-size pages. See "Fuser Replacement" on page 240.

Toner Cartridge Replacement

REPLACE TONER
nnn: ZZZZ TONER EMPTY

* nnn: ZZZZ = 410: YELLOW
                411: MAGENTA
                412: CYAN
                413: BLACK

Toner Color	Order #
Black	52115101
Cyan	52115102
Magenta	52115103
Yellow	52115104

**1.** Press the cover release and open the printer's top cover fully.

<div style="border: 2px solid red;">

WARNING!

If the printer has been powered on, the fuser is hot. This area is clearly labelled. Do not touch.

</div>

2. Note the positions of the four cartridges: Cyan (**1**), Magenta (**2**), Yellow (**3**), Black (**4**):
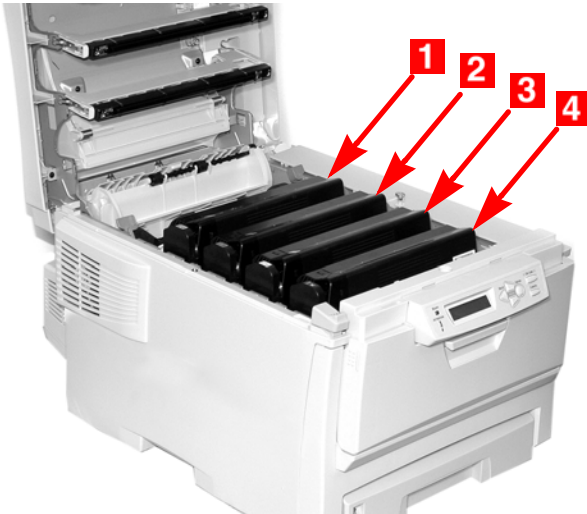
3. Pull the colored toner release lever on the cartridge to be replaced (here we are showing replacement of the black toner cartridge) towards the front of the printer.
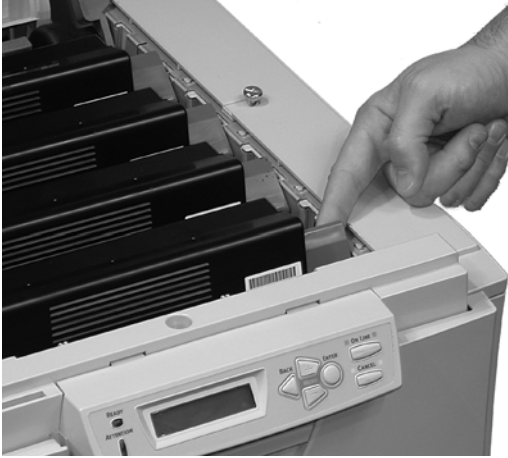
4. Lift the right-hand end of the cartridge and then pull the cartridge to the right to release the left-hand end as shown. Remove the toner cartridge and discard it in accordance with your local regulations.
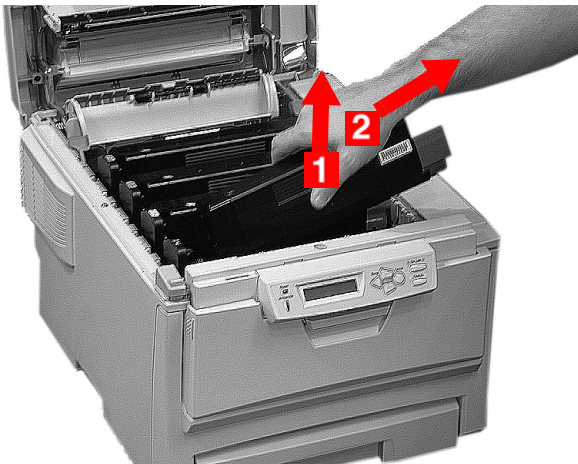
5. Unpack the new toner cartridge and gently shake it from *side to side* to loosen and distribute the toner evenly inside the cartridge.

6. Remove the adhesive tape from the underside of the cartridge.

CAUTION!

Do not touch the toner release lever until the toner cartridge is installed in the image drum. If you do, it will open the toner release slot and spill toner.

7. Holding the cartridge by its top center with the colored release lever to the right, insert the left end of the cartridge into the top of the image drum, pushing it firmly against the spring on the drum unit.
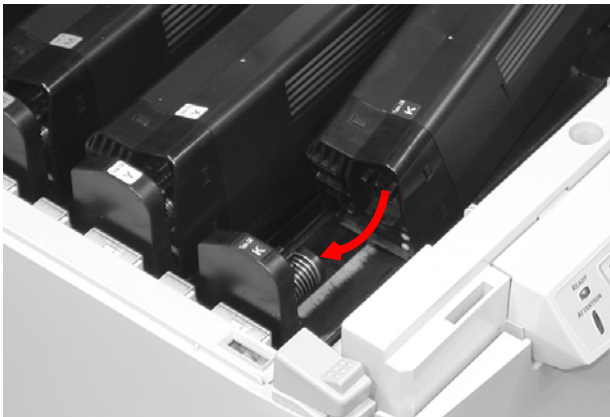
8. Lower the right end of the cartridge into the image drum unit, pressing it firmly down in place, then push the colored lock lever back to open the toner slot and lock it in place.
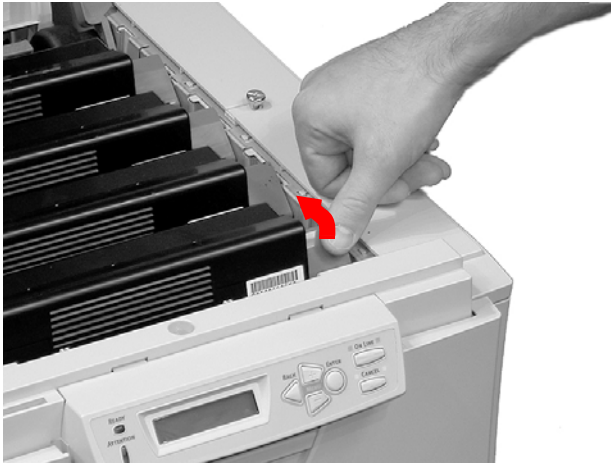
Important!

The lever should move easily. If it does not, *STOP!* and push down on the toner cartridge to be sure that it is properly seated in the image drum, then press back on the lever again.

To avoid toner spillage, do NOT open the toner release lever until the toner cartridge is firmly seated in the image drum.

9. Close and latch the top cover.

Image Drum Replacement

REPLACE IMAGE DRUM
nnn: ZZZZ DRUM LIFE

* nnn: ZZZZ = 350: YELLOW
351: MAGENTA
352: CYAN
353: BLACK

Drum Color	Order #
Black	56118101
Cyan	56118102
Magenta	56118103
Yellow	56118104

1. Place two sheets of paper on your working surface to protect it. You will put the image drum and toner cartridge on the paper while replacing them.

2. Press the cover release and open the top cover fully.

<div style="border: 3px solid red;">

WARNING!

If the printer has been powered on, the fuser is hot. This area is clearly labelled. Do not touch it.

</div>

3. Note the positions of the four image drums: Cyan (**1**), Magenta (**2**), Yellow (**3**), Black (**4**):
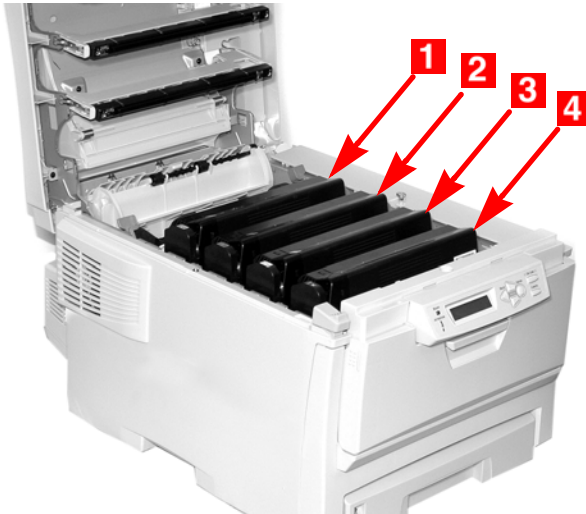
4. Lift the image drum, complete with its toner cartridge, out of the printer and put it down on one of the sheets of paper.

5. With the colored toner release lever (**1**) to the right, pull the lever towards you. This will release the bond between the toner cartridge and the image drum.

6. Lift the right-hand end of the toner cartridge, move the cartridge to the right, and remove the toner cartridge from the image drum. Place the toner cartridge on a sheet of paper to avoid marking your furniture.

7. Discard the used image drum in accordance with your local regulations.

<div style="border: 3px solid purple; background-color: #f0e0ff; padding: 10px;">

CAUTION!

The green image drum surface at the base of the cartridge is very delicate and light sensitive. Do not touch it and do not expose it to normal room light for more than 5 minutes. If the drum unit needs to be out of the printer for longer than this, please wrap the cartridge inside a black plastic bag to keep it away from light. Never expose the drum to direct sunlight or very bright room lighting.

</div>

8. Unpack the new image drum.

<div style="border: 2px solid purple;">

CAUTION!

Image drum handling: The image drum contains toner. To avoid spilling toner, be careful to *keep it upright*.

</div>

9. Grasp the white tape tab and peel the tape off the drum.

10. Remove the paper sheet, then the clear plastic film.
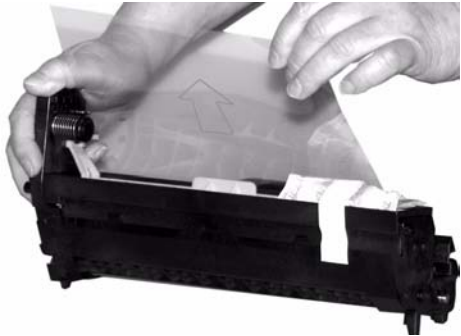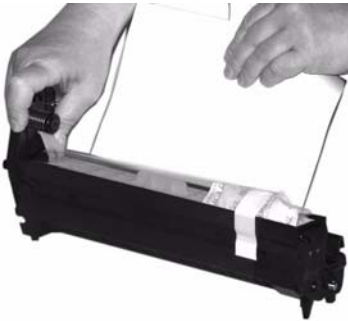
11. Remove the silica gel pack.

12. Place the image drum in the printer.

13. Remove the orange drum seal.

14. Install the toner cartridge in the image drum.
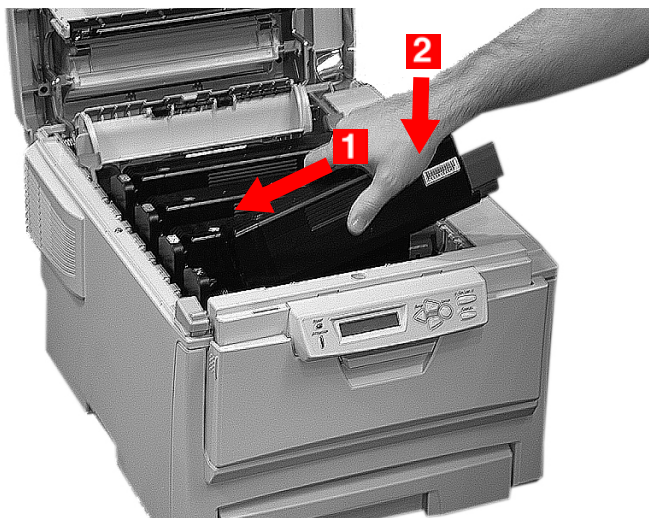
15. Push back the toner cartridge lock lever.
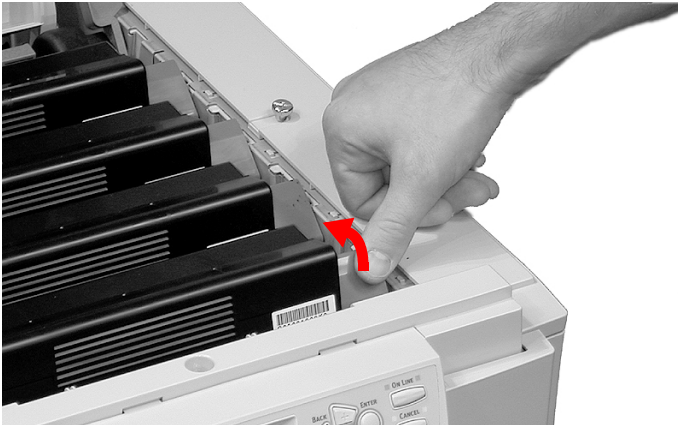
16. Close and latch the top cover.

Belt Unit Replacement

P/N 42158701

REPLACE BELT
355: BELT LIFE

The belt unit is located under the four image drums. This unit requires replacement approximately every 50,000 pages.

1. Press the cover release and open the top cover fully.

<div style="border: 2px solid red;">

WARNING!

If the printer has been powered on, the fuser is hot. This area is clearly labelled. Do not touch it.

</div>

2. Note the positions of the four image drums: Cyan (**1**), Magenta (**2**), Yellow (**3**), Black (**4**). ***It is essential that they go back in the correct order!***
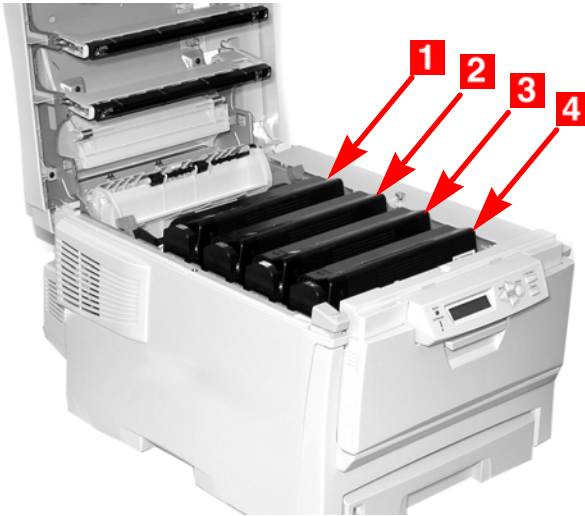
3. Lift each of the image drum units out of the printer and place them on a *flat* surface in a safe place away from direct sources of heat and light.

<div style="border: 4px solid purple; background: #e6d8f5; padding: 1em;">

<div align="center">

CAUTION!

</div>

The green surface at the base of each image drum is very delicate and light sensitive.

- **Do not touch the green surface.**
- **Never expose the drum to direct sunlight or to very bright room lighting.**
- **Do not expose it to normal room light for more than 5 minutes.**
- **If the image drum must be out of the printer for longer than 5 minutes, place the image drum inside a black plastic bag or carefully place it in a drawer or cabinet to keep it away from light.**

</div>

4. Locate the two blue locks (**1**) and the handle (**2**).
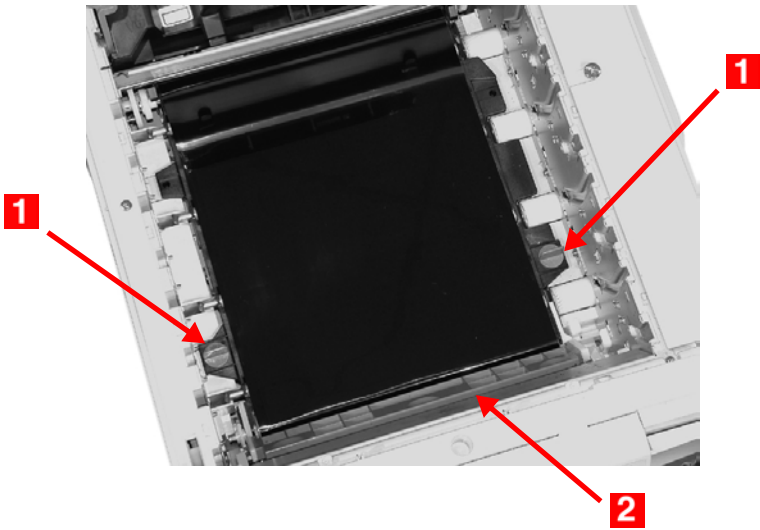
5. Turn the two locks about 45° *counter*clockwise to release the belt.
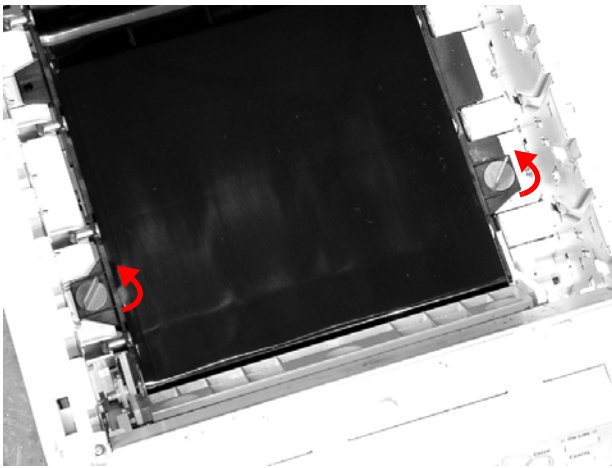
6. Pull up the handle and lift the belt unit out of the printer.
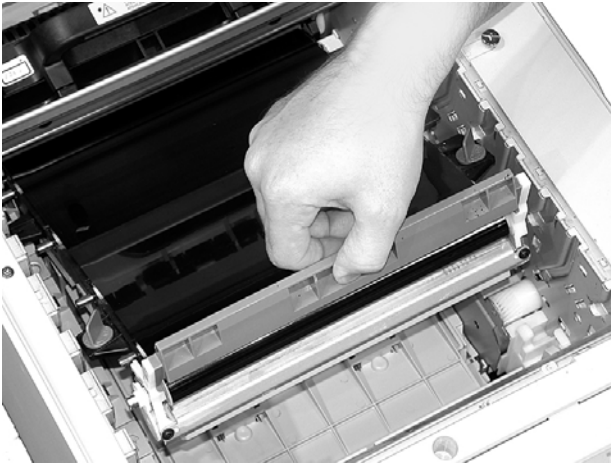
7. Unpack the new belt unit and hold it with the blue handle toward the front of the printer.

8. Place the drive gear at the back of the belt unit in the gear at the left rear corner of the printer, and lower the belt unit into the printer.
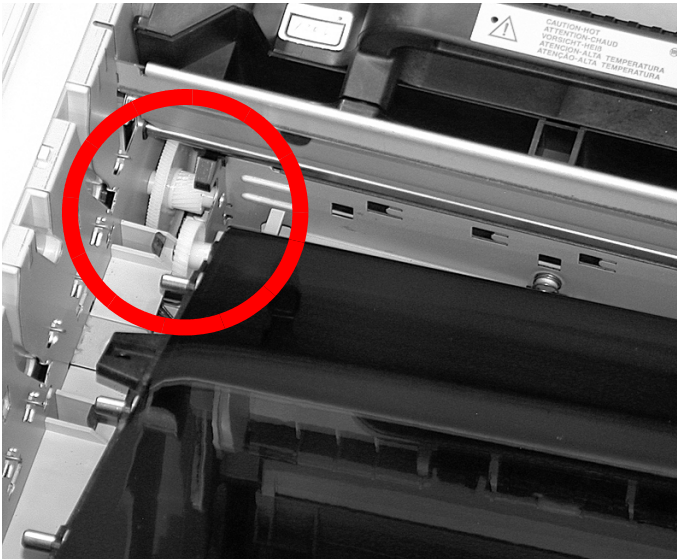
9. Turn the two belt locks about 45° clockwise to secure the belt unit in place.
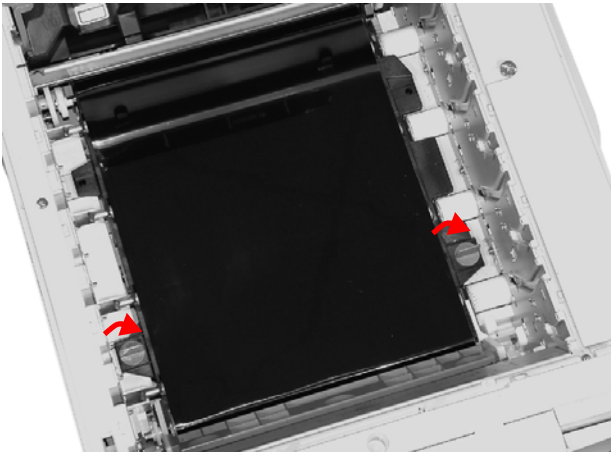
10. Place the four image drums/toner cartridges back in the printer (**1** = Cyan, **2** = Magenta, **3** = Yellow, **4** = Black):
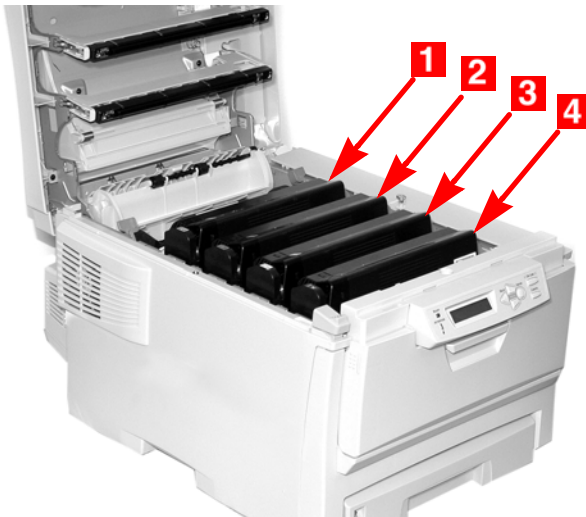
11. Close and latch the top cover.

Fuser Replacement
P/N 42158601 (120V)
P/N 42158602 (230V)

REPLACE FUSER
354: FUSER LIFE

WARNING!

If the printer has recently been powered on, some fuser components will be very hot. Handle the fuser with extreme care, holding it only by its handle, which will only be mildly warm to the touch.

A warning label clearly indicates the area. If in doubt, switch the printer off and wait at least 10 minutes for the fuser to cool before opening the printer cover.

1. Press the cover release and open the printer's top cover fully.

2. Pull the two blue fuser lock levers (**1**) towards the front of the printer.
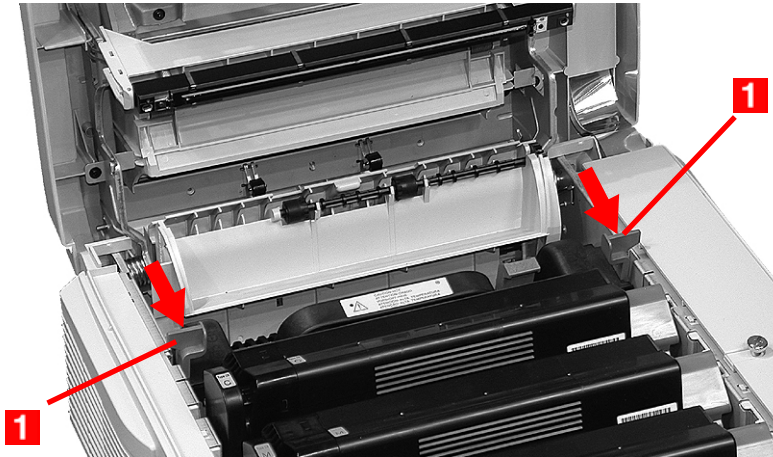
3. Holding the fuser *by its handle*, lift the fuser out of the printer. *If the fuser is still warm, place it on a flat surface which will not be damaged by heat.* After letting the fuser cool down, discard it.
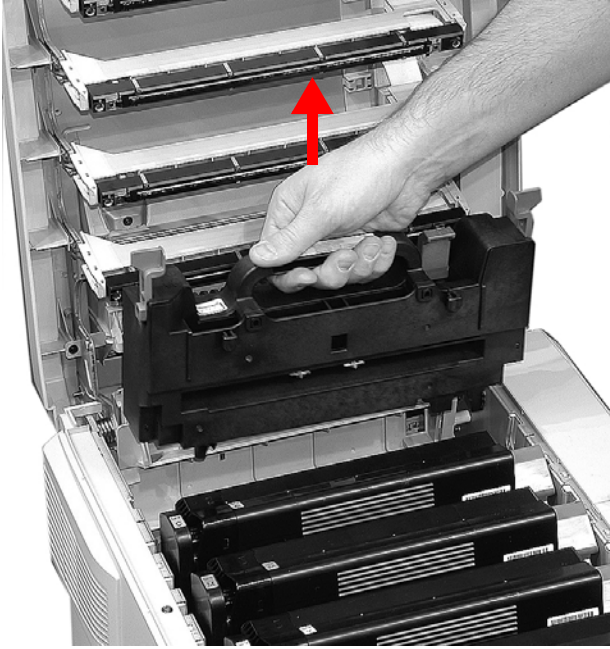

4. Remove the new fuser from its packaging, then remove any packing tape.

5. Push the orange transport lock to the left to release it (you'll hear it snap), then remove it:
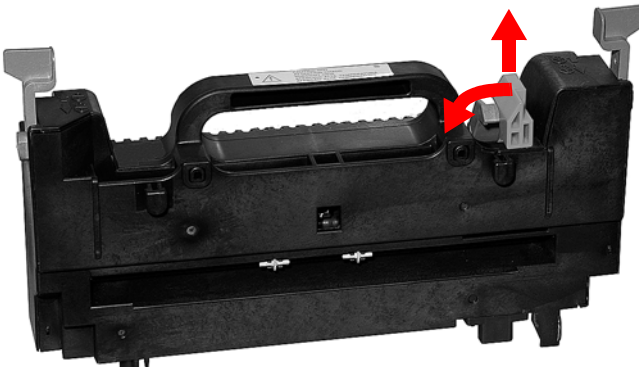
6. Holding the new fuser by the handle, with the fuser pressure release lever (**1**) on the right, lower the fuser into the priner.
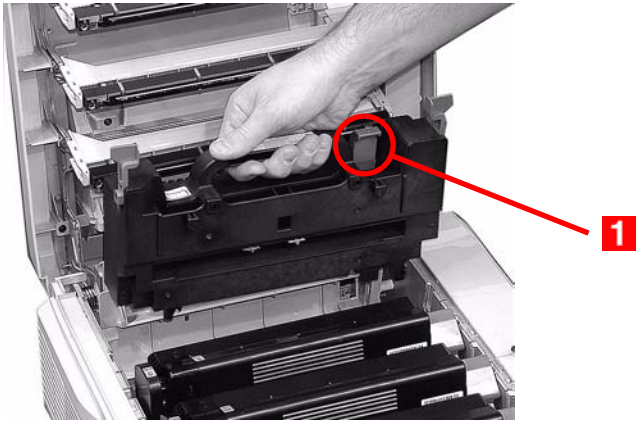
7. Push the two blue retaining levers (**1**) toward the rear of the printer to lock the fuser in place.
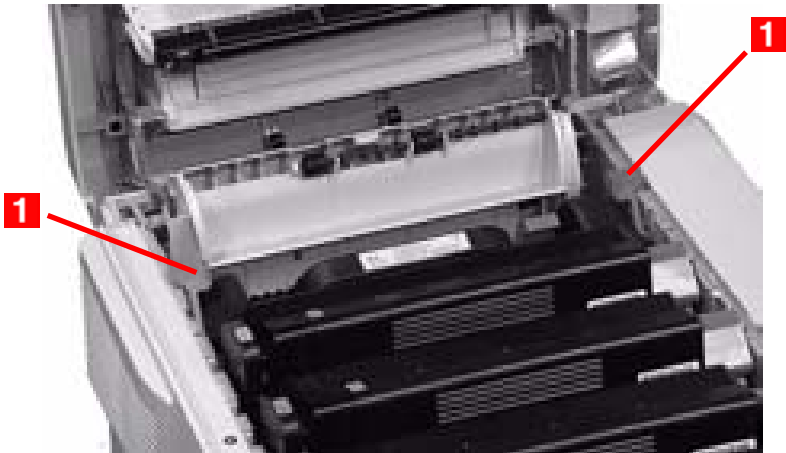
8. Close and latch the top cover.

Options

The following options are available for your printer:

- Additional RAM memory (see below)
- Second Paper Tray (see page 246)
- Duplex Unit, for two sided printing (see page 247)
- 10 GB Hard Disk Drive (see page 248)

Instructions for installing these options are found in the packaging with the option.

RAM Memory
(P/N 70043001, 70043101, 70043201)

The basic printer comes equipped with 64 MB of main memory. This can be upgraded with an additional memory board containing

- 64 MB (P/N 70043001)
- 128 MB (P/N 70043101)
- 256 MB (P/N 70043201)

giving a maximum total memory capacity of 320MB.

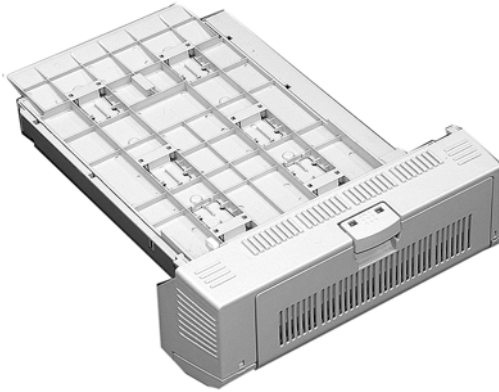# Second Paper Tray
(P/N 42158501)
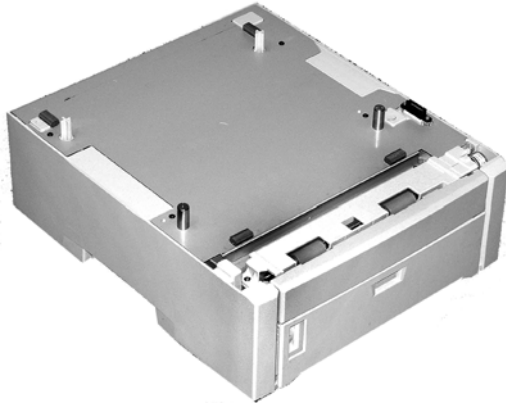
The second paper tray takes:

- Up to 530 sheets of 20-lb. paper.

- All the same size media as Tray 1 except A6.

- Paper weight range 16 to 47 lbs. US Bond (33 to 98 lbs Index, 60 to 177 g/m^2 metric).

Duplex Unit
(P/N 42158401)

The duplex unit adds the function of two sided printing and enables booklet printing. The duplex unit slides straight into the rear of the printer and requires no tools to install.

The duplex unit handles:

- Paper sizes letter, legal-14, legal-13.5, legal-13, A4, A5, B5.

- Paper weights from 20 to 28 lbs. US Bond
  (42 to 58 lb. Index, 75 to 105 g/m² metric).

Hard Disk Drive

(P/N 70043501)
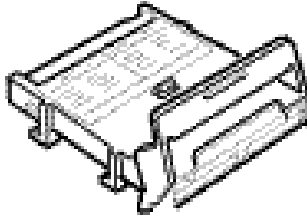
The Hard Disk Drive plugs into the printer's main circuit board and provides 10 GB of space. It is highly recommended if you plan to use the printer's Proof and Print or Secure Print features.

It is required

• If you wish to use the printer's Store to Hard Disk Drive feature.

• If you wish to use the optional Print Job Accounting software with the printer when it is installed on a network.

The Storage Device Manager software provided with the printer is used to manage the Hard Disk Drive.

Clearing Paper Jams

Jams can occur due to paper misfeeding from a paper tray or at any point along the paper path.

When a jam occurs, the printer immediately stops, and the LCD display indicates the area where the first sheet is jammed. All jammed sheets must be removed in order to restore the printer to normal operation.

Once you clear a jam and close the cover, you may see a new jam message indicating an additional jammed sheet which must be cleared. This is especially likely if you are printing a multi-page document or multiple copies of a single document.

Unless you have entered the menu and changed the Jam Recovery setting in the System Configuration Menu to OFF, once all jams have been cleared, the printer will automatically attempt to reprint any pages lost due to paper jams.

- Jam 370: see page 261
- Jam 371: see page 263
- Jam 372: see page 259
- Jam 373: see page 261
- Jam 380: see page 259
- Jam 381: see page 253
- Jam 382: see page 250
- Jam 383: see page 261
- Jam 390: see page 268
- Jam 391: see page 266
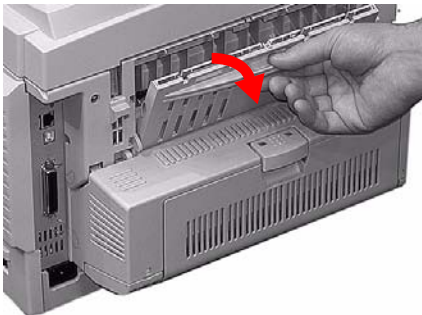- Jam 392: see page 266

Jam 382
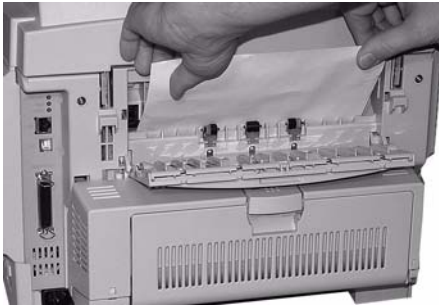
1. Open the top cover.

2. Gently pull the sheet out.

- If the sheet does *not* come out easily, go to the next step.
- If the sheet does come out, close the cover.
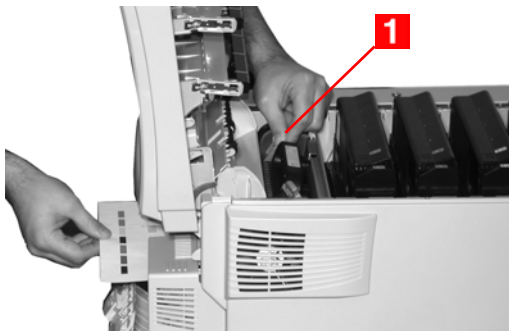
3. Lower the rear exit tray.
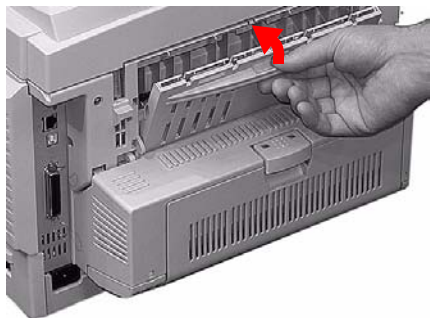
4. Pull out the jammed sheet.

Important!

WARNING! The fuser may be HOT!

If the sheet is difficult to remove, it is partially jammed in the fuser. To get it out, reach around the top cover and press down on the fuser pressure release lever (**1**) before pulling the sheet out. Then let go of the fuser pressure release lever.

5. Close the rear exit.
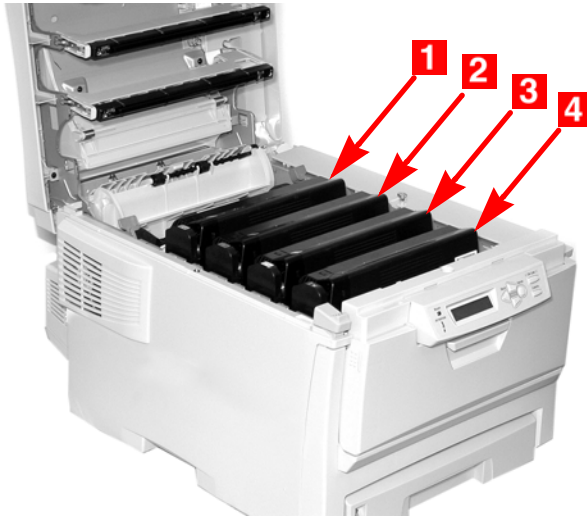

6. Close the top cover.

Jam 381

OPEN TOP COVER
381: PAPER JAM

1. Press the cover release and open the printer's top cover fully.

2. Note the positions of the four image drums: Cyan (**1**), Magenta (**2**), Yellow (**3**), Black (**4**). *It is essential that they go back in the correct order!*

WARNING!

*If the printer has been powered on, the fuser is **hot**. This area is clearly labelled. Do not touch it.*

3. Lift each of the image drum/toner cartridge units out of the printer and place them on a *flat* surface in a safe place *away from direct sources of heat and light*.

CAUTION!

The green surface at the base of each image drum is very delicate and light sensitive.

- **Do not touch the green surface.**
- **Never expose the drum to direct sunlight or to very bright room lighting.**
- **Do not expose it to normal room light for more than 5 minutes.**
- **If the image drum must be out of the printer for longer than 5 minutes, place the image drum inside a black plastic bag or carefully place it in a drawer or cabinet to keep it away from light.**

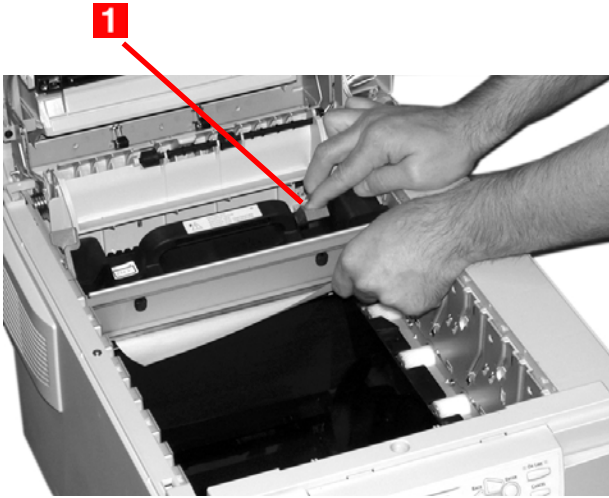**4.** Remove any sheets of paper on the belt unit.

NOTE

Warning! If the printer has been printing, the fuser will be *HOT*!

To remove a sheet trapped in the fuser, grasp the edge of the sheet, push the fuser pressure release lever (1) towards the front and down, and lift out the sheet. Then let go of the fuser pressure release lever.

If the sheet is well advanced into the fuser (only a short length is still visible), do not attempt to pull it back. See step 4 under "Jam 382" .

5. Place the four image drums/toner cartridges back in the printer, being careful to place them in the proper sequence (**1** = Cyan, **2** = Magenta, **3** = Yellow, **4** = Black):
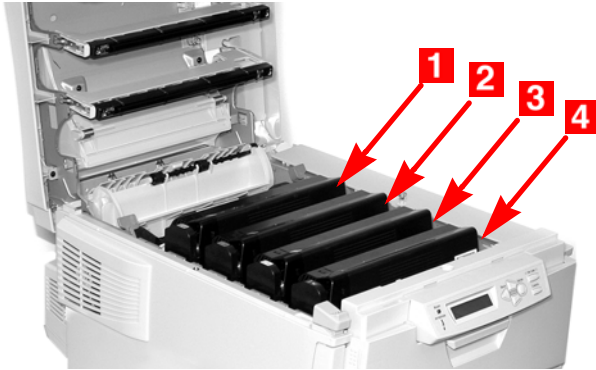
6. Close the top cover.

Jam 372 and 380

OPEN FRONT COVER
nnn: PAPER JAM

nnn = 372 or 380.

1. Lift the front cover release and pull open the front cover.

2. Remove any jammed sheets.

3. Close the front cover.

Jam 370, 373 and 383

OPEN DUPLEX COVER
nnn: PAPER JAM

nnn = 370, 373, 383

1. Press the duplex cover release and open the duplexer cover.
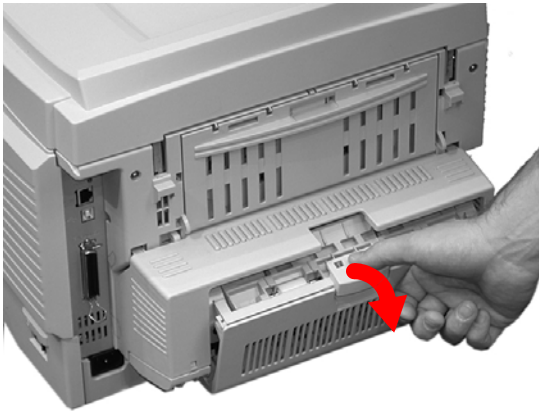
2. Remove any jammed sheets.
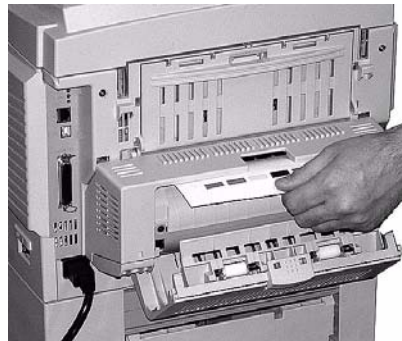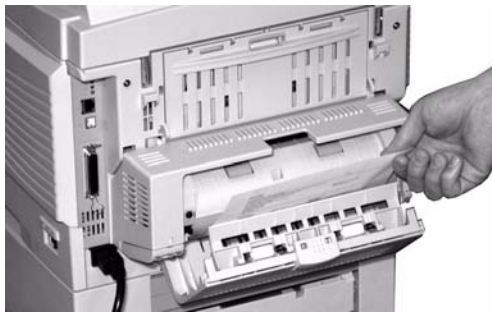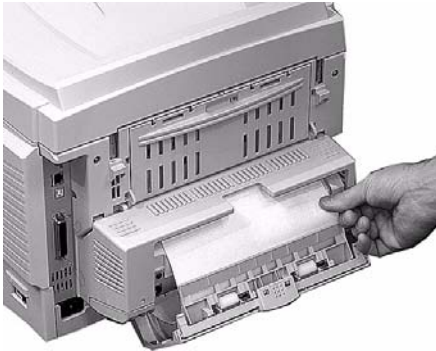
3. Close the duplex unit cover.
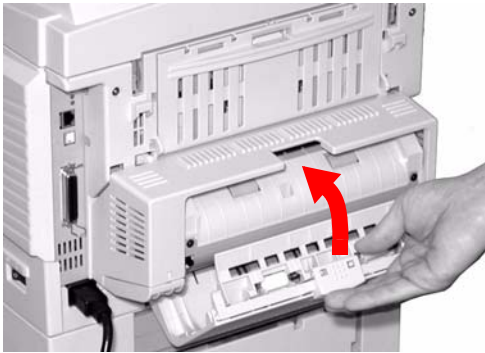
Jam 371

OPEN DUPLEX COVER
371: PAPER JAM

1. Turn off the printer.

2. Pull out the duplexer.

3. Pull the duplexer lid to unlock it.
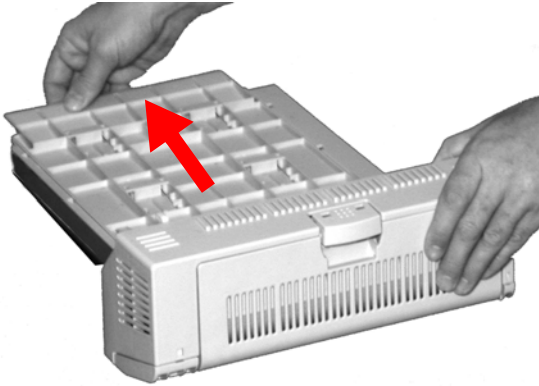
4. Open the lid and remove the jammed sheet.

5. Close the lid and push it back to lock it in place.
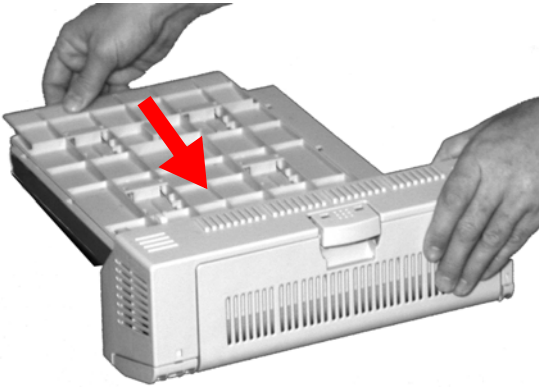
6. Push the duplexer back into the printer.
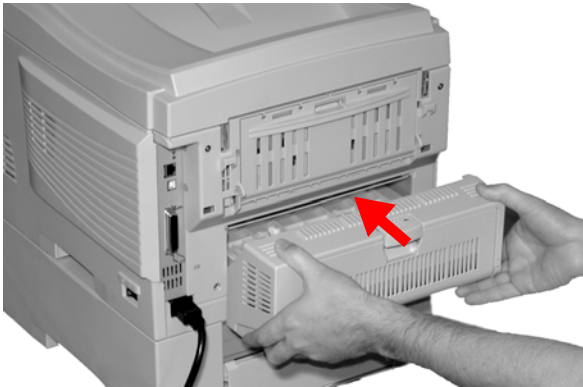
7. Turn on the printer

Jam 391 and 392

OPEN FRONT COVER
391: PAPER JAM

OPEN FRONT COVER
392: PAPER JAM

1. Pull out the appropriate tray (391 = Tray 1, 392 = Optional Tray 2) and remove any sheet jammed as it exited the tray.
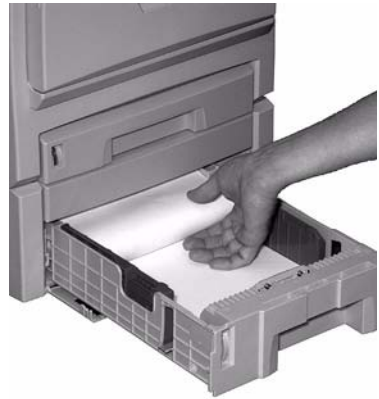
391   **392**

2. Open the front cover.

3. Remove any jammed sheets.
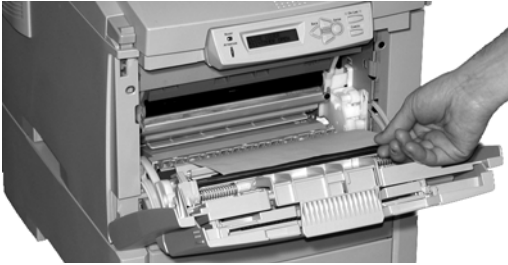
4. Close the front cover.

Jam 390

If the Sheet Has Just Begun to Enter the Printer

1. Gently pull the sheet out of the printer.
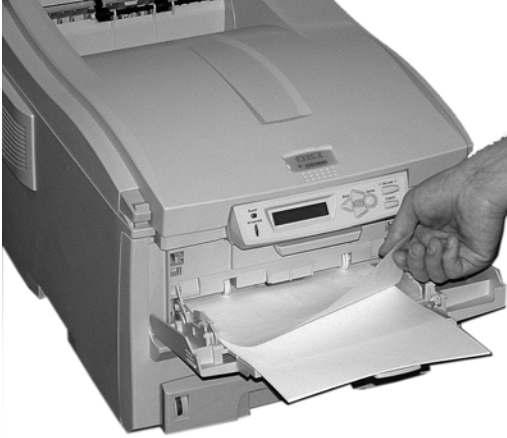
If the Sheet Can't Easily Be Pulled Out from the Front

1. Lift the front cover release and pull open the front cover.
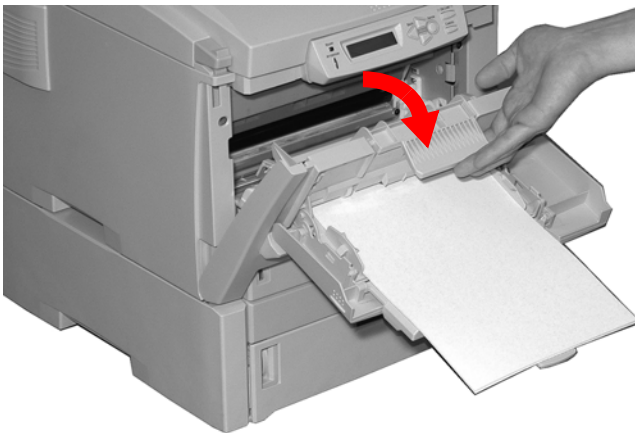
2. Remove any jammed sheets.
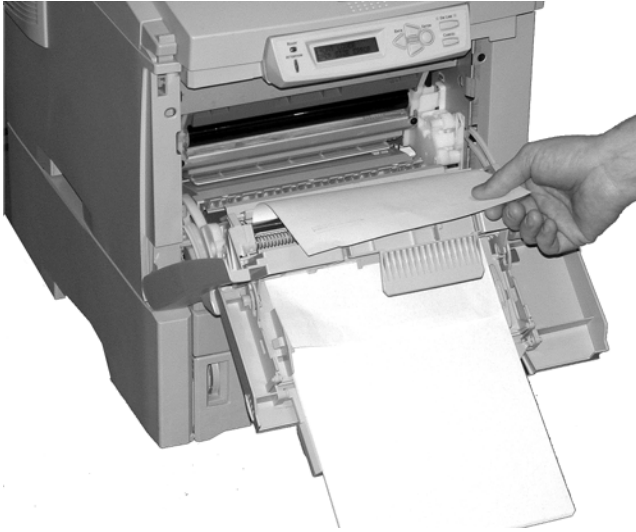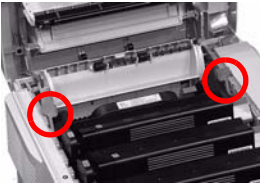
3. Close the front cover.
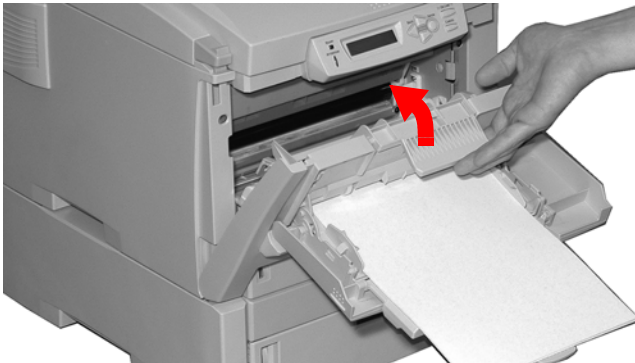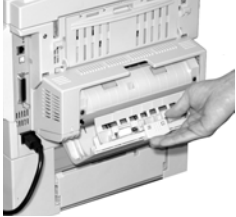
Troubleshooting

LCD Messages

Message	Meaning	What to Do
* TONER SENSOR ERROR	Flashes across the second line of the display: the indicated color toner (*) is missing from the printer.	Open the top cover and make sure the indicated toner is there and properly seated in the printer: C = Cyan, Y = Yellow, M = Magenta, K = Black.
ADD MORE MEMORY 420: MEMORY OVERFLOW	The document size is too large for the printer's memory.	Reduce the size of the document. If this happens frequently, install additional memory (see "RAM Memory" on page 152).
CANCELING JOB (USER DENIED)	The optional Job Accounting utility is being used and the client sending the print job is not authorized to print.	The client must go to the system administrator and get print privileges assigned to them.
CANCELLING JOB (BUFFER FULL)	The optional Job Accounting utility is being used and the printer's buffer is full.	Check with your system administrator.
CANCELLING JOB (JAM)	The setting for Jam Recovery in the menu has been changed to off and a paper jam has occurred. Any unprinted data is being deleted.	Clear the jam and resend the missing pages of the print job.

Message	Meaning	What to Do
CHECK BELT 330: BELT MISSING	The belt unit is not properly installed.	Open the top cover and lift out the black (K) and Yellow (Y) image drums, placing them on a *flat* surface. Check to be sure that the belt unit latches are fully in the latched position: then reinstall the image drums.
CHECK FUSER 320: FUSER MISSING	The fuser unit is not properly installed.	Open the top cover and check to be sure that the fuser unit is properly seated in the printer and that the lock levers are pushed all the way toward the back of the printer:
CHECK MP TRAY 390: PAPER :JAM	Paper has jammed while exiting the MP Tray.	Clear the jam: see "Jam 390" on page 175.

Message	Meaning	What to Do
CLOSE COVER 316: DUPLEX COVER OPEN	The duplex cover is open or not properly latched.	Close the duplex cover:
CLOSE COVER nnn: COVER OPEN	Either the top cover or the front cover is open.	Be sure both the top cover and the front cover are firmly closed.
HARD DISK FULL	The optional hard disk drive has no more memory available.	Stored files must be cleared out of the hard disk drive either by individual clients from the front panel or by the system administrator (using Storage Device Manager).
INSTALL PAPER CASSETTE 430: TRAY 1 MISSING	Tray 1 is not installed in the printer.	Install the missing tray.
INSTALL PAPER CASSETTE 440: TRAY 1 OPEN	Tray 1 is not properly installed in the printer.	Make sure the tray is pushed fully into the printer.
INVALID ID JOB REJECTED	The optional Job Accounting utility is being used and a print job was received from a client who does not have print privileges.	The client must go to the system administrator and get a valid ID assigned to them.
LOAD mmm AND PRESS ONLINE SWITCH 490: MP TRAY EMPTY	Print job from MP Tray has been received and the MP Tray is empty.	Load the requested media (mmm) in the MP Tray and press **ON-LINE**.

Message	Meaning	What to Do
LOAD mmm nnn: tttt EMPTY	A print job has been received and the indicated paper tray is empty.	Load mmm media in the indicated (tttt) tray.
LOAD mmm/ppp AND PRESS ONLINE SWITCH nnn: tttt MEDIA MISMATCH	The media type in the indicated tray (tttt) does not match that specified in the print job being processed.	Load the appropriate media in the tray and press **ON-LINE**.
LOAD mmm/ppp AND PRESS ONLINE SWITCH nnn: tttt SIZE MISMATCH	The media size (mmm) and/or type (ppp) loaded in the indicated tray (tttt) does not match that specified in the print job being processed.	Load the appropriate media in the tray and press **ON-LINE**.
OPEN DUPLEX COVER nnn: PAPER JAM	Paper has jammed entering or exiting the duplexer.	Clear the jam: see "Jam 370, 373 and 383" on page 168.
OPEN FRONT COVER nnn: PAPER JAM	Paper jam.	Clear the jam: see See "Jam 372 and 380" on page 166.
OPEN TOP COVER nnn: PAPER JAM	Paper jam.	Clear the jam: see "Jam 382" on page 157, ff.
ORDER xxx	Appears on the second line of the display to indicate that consumable xxx (e.g., belt, fuser, toner, image drum) is nearing end of life.	Make sure you have a replacement unit on hand.
POWER ON/OFF 300: NETWORK ERROR	An error has occurred involving the network.	Shut the printer off, then turn it back on. If the message still appears, check with your network administrator.

Message	Meaning	What to Do
PRESS ONLINE SW INVALID DATA	The printer has received invalid data.	Press **ON-LINE**. Reprocess and resend the print job.
PS3 EMULATION ERROR	An error occurred or virtual memory was used up.	Reprocess and resend the job to the printer. Try reducing the size of the print file being sent.
REPLACE TONER nnn: * TONER EMPTY	The indicated toner needs replacement.	Replace the indicated toner: 410: Y = Yellow 411 M = Magenta 412: C = Cyan 413: K = Black
REPLACE YYYY nnn: YYYY LIFE	The indicated component is nearing end of life and should be replaced.	Replace the indicated component: YYYY = Fuser, Belt, C Drum, Y Drum, M Drum, K Drum.
tttt EMPTY	Appears on the second line of the display to indicate that ttt tray has run out of media.	Load media in tray tttt.
xxx LIFE	Appears on the second line of the display to indicate that consumable xxx (e.g., belt, fuser, image drum) will need to be replaced soon.	Replace the indicated item.
YYYY nnn: FATAL ERROR	An error has occurred which requires service. YYYY = the general cause. nnn = error number.	Write down the message including the error number "nnn," then call your authorized Service Dealer for service.

Problem Solving

Problems Printing

Paper feed problems.

If paper jams are frequent:

- More than one sheet feeds at a time.
- Paper curls.
- Paper feeds at an angle.

Possible cause	Remedy
The printer is not horizontal.	Place the printer on a stable, level surface.
The paper is too thin.	Use the correct type of paper (see "Media Recommendations" on page 11).
The paper is moist or affected by static.	Store paper within specified temperature and humidity levels (see "Specifications" on page 191).
The paper is creased or wrinkled.	Remove the creased/wrinkled paper from the feed tray.
The paper is not aligned correctly.	Adjust tray or manual feed guides.
Paper doesn't feed.	Correct paper feed selection in the printer driver.

Paper jam has been cleared, but printer does not print.

Possible cause	Remedy
The top cover has not remained open until all paper jams have been cleared.	Removing a paper jam is not sufficient: Raise and *gently* lower the top cover, especially if the paper jam has been removed from behind the front cover.

Problems Printing from Macintosh

Cannot configure USB

Possible cause	Remedy
USB cable does not meet specifications.	Use USB cable to specification Ver.1.1.
USB cable is disconnected or faulty.	Reconnect or try another cable.
A USB hub is being used.	The printer cannot be used with a USB hub. Connect the printer and computer directly.
The USB cable is installed in the Ethernet port.	Make sure the USB cable is plugged into the white USB port (**1**) on the printer:

Application error is displayed.

Possible cause	Remedy
Application is not suitable for Macintosh version.	Upgrade the application.
Memory is insufficient for number of applications running.	Close all other applications.
Print file is corrupted.	Correct or recreate the file.
Memory is insufficient for application.	Increase computer's memory.
Insufficient free space on hard disk.	Delete unnecessary files.
Printer driver is incorrectly configured.	Correctly configure printer driver.

Printing is slow.

Possible cause	Remedy
Print processing is carried out by the computer.	Use a computer with a faster processor.
Print resolution is set high.	Set lower print resolution in the printer driver. • *Job Option tab*: Quality
Data is too complex.	Simplify data.

Printer requests paper size change to continue printing.

Possible cause	Remedy
Paper loaded in tray is different size from that formatted in software application.	Either change paper in tray to match size formatted in application and press **ON-LINE** to continue, or continue printing on existing paper by pressing **ON-LINE**.

Print Quality Problems

Longitudinal white stripes

Remedy
Clean LED head with lens cleaner or soft tissue.
Change toner cartridge.
Change image drum.

Longitudinal fading

Possible cause	Remedy
LED head is dirty.	Clean LED head with lens cleaner or soft tissue.
Toner is low.	Change toner cartridge.
Paper is unsuitable for printer.	Use recommended paper.

Faint printing

Possible cause	Remedy
The toner cartridge is incorrectly installed.	Reinstall the toner cartridge (see "Toner Cartridge Replacement" on page 126).
Toner is low.	Change toner cartridge (see "Toner Cartridge Replacement" on page 126).
The paper is moist.	Store paper within specified temperature and humidity levels (see "Specifications" on page 191).
Paper is unsuitable for printer.	Use recommended paper (see "Media Recommendations" on page 11).

Fading in patches

Possible cause	Remedy
The paper is moist.	Store paper within specified temperature and humidity levels (see "Specifications" on page 191).

Longitudinal black stripes

Possible cause	Remedy
Image drum is damaged.	Replace image drum (see "Image Drum Replacement" on page 133).
Toner is low.	Change toner cartridge (see "Toner Cartridge Replacement" on page 126).
Periodic black lateral lines or spots.	• If the lines or spots occur at intervals of approximately 44 - 94 mm, the green surface of the image drum is damaged or dirty. If damaged, replace the image drum cartridge (see "Image Drum Replacement" on page 133). If dirty, wipe the image drum gently with soft tissue. If this does not work, replace the image drum. • If the lines or spots occur at intervals of approximately 113 mm, the fuser roller is damaged. Change the fuser (see "Fuser Replacement" on page 147).
The image drum has been exposed to light.	Remove the image drum from the printer and store it in a dark place for several hours. If this does not work, replace the image drum (see "Image Drum Replacement" on page 133).

Faint shading on unprinted sections

Possible cause	Remedy
Paper has been affected by static electricity.	Store paper within specified temperature and humidity levels (see "Specifications" on page 191).
Paper is too thick.	Use recommended paper (see "Media Recommendations" on page 11).
Toner is low.	Replace toner cartridge (see "Toner Cartridge Replacement" on page 126).

Blurred letter edges

Possible cause	Remedy
LED is dirty.	Clean LED with lens cleaner or soft tissue.
Cannot print desired color because toner is low.	Replace toner cartridge (see "Toner Cartridge Replacement" on page 126).

One side of printed pages appears blurred

Possible cause	Remedy
Top cover is not properly closed.	Press the cover release latch and open, then close, the cover.
One or more of the toner cartridges is not seated properly.	Open the top cover and check to be sure that each toner cartridge is fully seated and that each toner cartridge lock lever is pushed all the way back.

Miscellaneous problems

The power is on, but the printer does not go online.

Possible cause	Remedy
Bad connection	Switch off the printer and disconnect the power cable. Reconnect the power cable and switch the printer on. If this does not clear the fault, call for service.

Print processing does not start.

Possible cause	Remedy
Printer error	Check the control panel. If an error message is displayed, correct the problem.

Print processing cancels.

Possible cause	Remedy
The printer interface cable is faulty.	Replace the printer interface cable.
The time out setting is too short.	Reset time out in the menu to a higher value (**SYS CONFIG MENU** → **WAIT TIMEOUT**).

Printer makes a strange noise.

Possible cause	Remedy
The printer is not horizontal.	Place the printer on a stable, level surface.
There are scraps of paper or other foreign matter inside the printer.	Check the inside of the printer and remove any such objects.
The top cover is not firmly shut.	Press the left and right sides of the top cover.

Printer takes a long time to start printing.

Possible cause	Remedy
The printer has to warm up returning from power save mode.	In the printer menu settings, set power save to a higher value to increase the length of time before entering power save mode (**SYS CONFIG MENU** → **POW SAVE TIME**).
The image drum carries out a cleaning process to ensure print quality, which takes time.	Wait until this process has been completed.
The fuser unit adjusts temperature, which takes time.	Wait until this process has been completed.
The printer is processing data from another interface.	Wait until this data is processed.

Toner rubs off when you rub the printed surface.

Possible cause	Remedy
Media Weight and Media Type settings may not be appropriate.	Set the value of media weight in the menu to the next heaviest one (**MEDIA MENU** → **YYY MEDIA WEIGHT**).
Packing materials were left on the fuser when it was installed.	**Careful!** Fuser my be *HOT*! Open the top cover and check to be sure that all the packing materials were removed from the fuser. To remove the fuser see "Fuser Replacement" on page 147.

Specifications

Item	Specification
Dimensions	16.61" W x 22.09" D x 13.58" H (422 mm W x 561 mm D x 345 mm H)
Net Weight	57.3 lbs. (26 Kg)
Print speeds	12 pages per minute (ppm) color 20 ppm monochrome *For Transparencies*: 5 ppm color, 12 ppm monochrome
Resolution	600 dpi or 600 x 1200 dpi
Environmental	*Temperature* • Operating: 50 to 90°F (10 to 32°C) • Storage (packed up): -14 to 110°F (-10 to 43 °C) • Power Off: 32 to 110°F (0 to 43°C) *Relative Humidity* • Operating: 20 to 80% RH • Storage (packed up): 10 to 90% RH • Power Off: 10 to 90% RH
Auto Features	Auto registration Auto density adjustment Auto consumable counter reset
Memory	64 MB standard, upgradable to 128 MB, 192 MB or 320 MB (see "RAM Memory" on page 152)
Paper capacity (20-lb. [75 g/m²] paper)	*Tray 1*: 300 sheets *Optional Tray 2*: 530 sheets *Multi-Purpose Tray*: 100 sheets
Paper weight Range	*Tray 1*: 17 to 32 lb. (64 to120 g/m²) *Optional Tray 2*: 17 to 47 lb. (64 to 177 g/m²) *Multi-Purpose Tray*: 20 to 54 lb. (75 to 203 g/m²)
Paper output	*Top Exit* (Face Down Stacker): 250 sheets 20-lb. 75 g/m² paper *Rear Exit* (Face Up Stacker): 100 sheets 20-lb. 75 g/m²
Printer life	420,000 pages or 5 years, whichever comes first
Duty cycle	*Maximum*: 50,000 pages per month at 5% duty cycle (equivalent to an average business letter) *Average*: 4,000 pages per month

Item	Specification
Toner life	5,000 pages at 5% coverage
Image drum life	15,000 pages at 3 pages per job
Belt life	50,000 letter-size pages
Fuser life	45,000 letter-size pages

Mac OS 9.x Utilities

This section explains how to install and use the utilities supplied with your printer.

Important!

These Utilities are unavailable for Mac OS X.

- Storage Device Manager
- Admin Setup Utility

General Information

Storage Device Manager

Using the software improves the internal performance of the printer allowing you to adjust printer options. This utility will only work over a network and is incompatible with USB connections.

Important!

The printer's internal hard drive does not communicate directly back to the Storage Device Manager software; it sends any error messages to the printer display. If things seem to be "stuck," check the display of the printer.

Admin Setup Utility for Macintosh

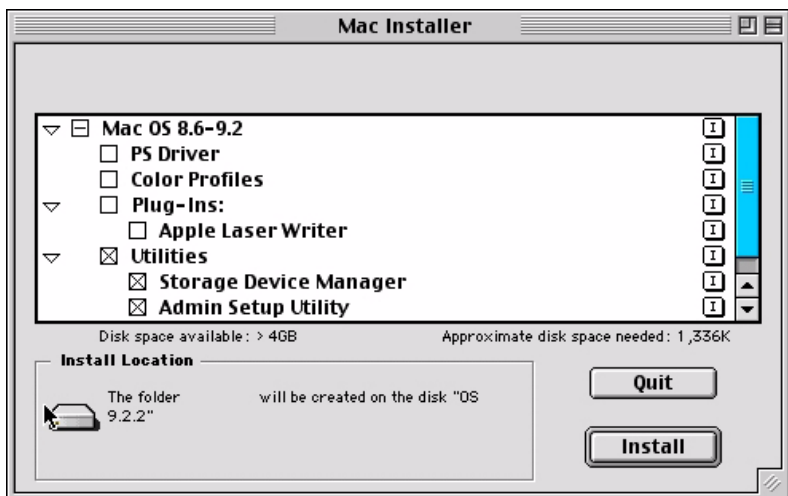This utility allows adjusting of network parameters of a printer.

Installation Procedures

The CD supplied with the printer provides the necessary installation software.

1. Insert the CD into the CD-ROM drive.

2. Double-click the CD icon that appears on the desktop.

3. Open the **MAC** folder and double-click the **Mac Installer** icon to open and run. Click **Continue** and accept the license agreement.

4. Select **Custom Install** to access the Utility Installation.

Mac Installer window showing:

```
▽ ⊟ Mac OS 8.6-9.2                                          [I]
      ☐ PS Driver                                           [I]
      ☐ Color Profiles                                      [I]
▽     ☐ Plug-Ins:                                           [I]
          ☐ Apple Laser Writer                              [I]
▽     ☒ Utilities                                           [I]
          ☒ Storage Device Manager                          [I]
          ☒ Admin Setup Utility                             [I]
```

Disk space available : > 4GB   Approximate disk space needed : 1,336K

Install Location

The folder   will be created on the disk "OS
9.2.2"

Quit

Install

5. Click in the boxes on the left hand side of the Utilities you wish to install and click the **Install** button to complete. This will install the Utilities.

Storage Device Manager Operation

<div style="border: 2px solid blue;">

Important!

- When attempting to open the application, ensure that the default printer is connected and turned on.
- If your default printer is a virtual printer, the application will return the error message "This utility does not support this interface." Re-set your default printer to a real printer.
- This utility will not work with a printer connected via USB.

</div>

Open SDM

1. Access the Storage Device Manager (SDM) program by accessing **Local Hard Drive — Okidata — SDM for Mac**. From the main screen, you can adjust basic options.
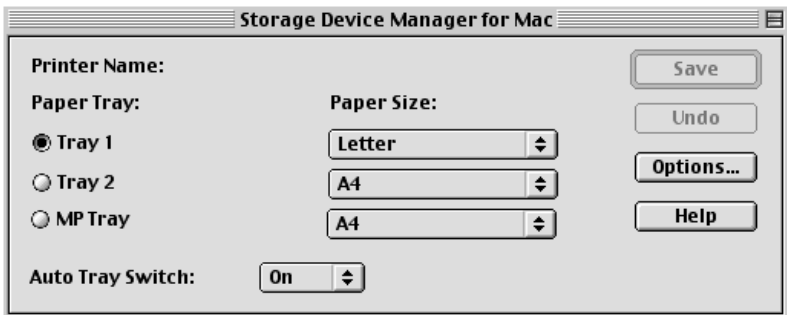
Printer Name

Displays the currently selected printer name.

Save button

1. Clicking this button will prompt converting the settings in this dialog box to PS commands and send them to change the printer settings.

2. This button is grayed out and disabled if no change has been made to the settings in this dialog box.

Undo button

1. Clicking this button will restore the settings in the dialog box effective before any changes that may have been made.

2. This button is grayed out and disabled if no has been made to the settings in this dialog box.

Options button

1. Clicking this button will prompt displaying the Option dialog box where the printer options can be set. For further description, see SDM Options below.

2. Closing the Option dialog box will prompt returning to the Main dialog box.

Help button

1. Clicking this button will prompt displaying the Help dialog box covering the items in this Main dialog box.

The following items depend on the printer models.

Paper Tray

Selects the location of paper for your printer. The trays that are not installed are grayed out and disabled.

Paper Size

Selects the size of paper for each tray. The currently selected paper is displayed.
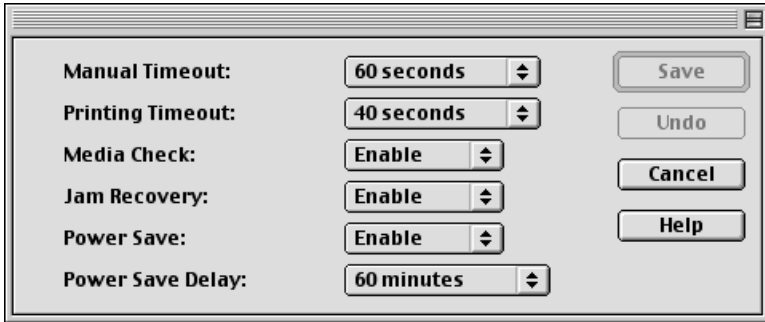
Paper Size/Legal Paper Size

Sets the sizes of paper that are too similar to be automatically recognized by your printer.

Auto Tray Switch

Sets automatic tray switch.

SDM Options

1. There are other parameters unique to the SDM available by pressing the **Options...** button.

2. For each option, click on the drop-down arrows to select your choice.

3. To load your changes, select **File—Update** from the menu.

Manual Timeout

This parameter sets the period of time, that after requesting paper to be inserted and is not inserted, when the print job is cancelled.

Printing Timeout

This parameter determines how long the printer waits for paper to be inserted after a request. After that interval, the job is cancelled.

Media Check

Sets whether the printer checks the matching of paper size to that of the tray. Only standard sizes are checked.

Jam Recovery

This parameter, when enabled, sets whether or not printing will continue after a paper jam has been cleared. If set to **Disable**, the

print job that was being printed when the paper jam occurred will be cancelled after clearing the paper jam. When set to **Enable**, the print job will continue after the jam has been cleared.

Power Save

This will enable **Power Save Delay**.

Power Save Delay

When no input is received for the specified time, the printer will enter Power Save Mode.

SDM Menu Items
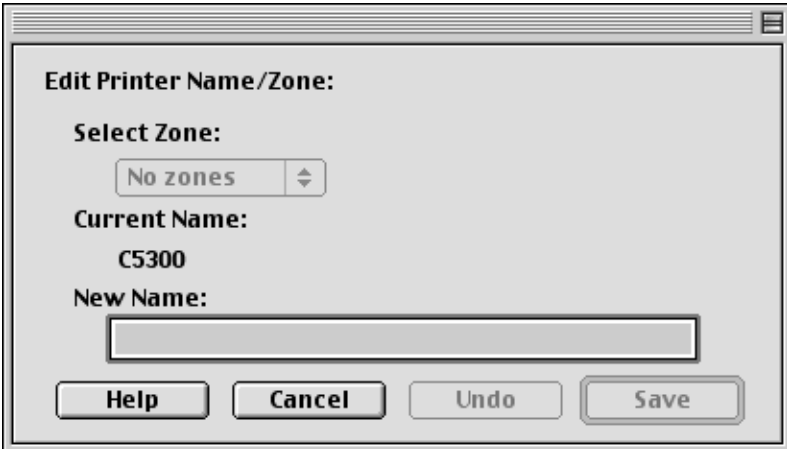
Not all menu items are available for the SDM.

File Menu

Menu Item	Value	Description
REFRESH	EXECUTE	Downloads the latest settings from the printer.
UPDATE PPD	EXECUTE	Loads the latest PPD file.

Utilities Menu

Menu Item	Value	Description
CHANGE PRINTER NAME/ZONE	EXECUTE	Only available if printer is on an AppleTalk network.
DOWNLOAD FILE	EXECUTE	Allows a file to be loaded into the printer.
DISPLAY FONT LIST	Execute	Displays the current font list loaded into the printer.
INITIALISE DISK	Execute	This will erase the hard drive and cause the printer to rebuild the directory structures automatically.
SUBSTITUTE FONTS	Execute	Unavailable - This function is not supported for a non-kanji printer.
PS GAMMA ADJUSTER	Opens Adjuster window	Allows the creation and loading of Gamma Adjustment Profiles.

Change Printer Name/Zone

```
Edit Printer Name/Zone:

   Select Zone:
      [ No zones    ⬍ ]
   Current Name:
      C5300
   New Name:
      [                                        ]

   [   Help   ]  [   Cancel   ]  [   Undo   ]  [   Save   ]
```
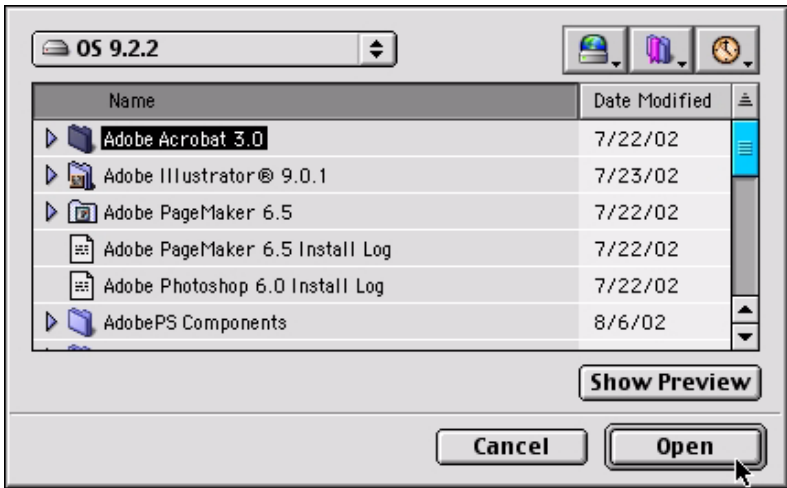
This will change the name that is stored in the PostScript interpreter in the printer. However, this will not change the name displayed in the Chooser - only the Admin Setup utility has that ability.

1. Access the function from the **Utilities** menu.

2. If available, choose the **Zone** required.

3. Rename the printer with the desired name and press **Save**.

Download File

This utility allows you to download to the printer's hard drive PS/PDF/ Font files for faster printing. The printer will automatically print the PS/PDF files unless they are specified to be stored in the hard disk.

1. After selecting **Download File** from the Utilities menu, select the file you wish to load into the printer.

2. If you wish to empty the hard drive, use the **Initialise Disk** function. Remember that this will erase the entire disk and the printer will automatically rebuild it.

Display Font List

Printer ROM ▼	Free Space: 0	MB	Close

AdobeSansMM
AdobeSerifMM
AlbertusMT
AlbertusMT-Italic
AlbertusMT-Light
AntiqueOlive-Bold
AntiqueOlive-Compact
AntiqueOlive-Italic
AntiqueOlive-Roman
Apple-Chancery
Arial-BoldItalicMT
Arial-BoldMT

Help
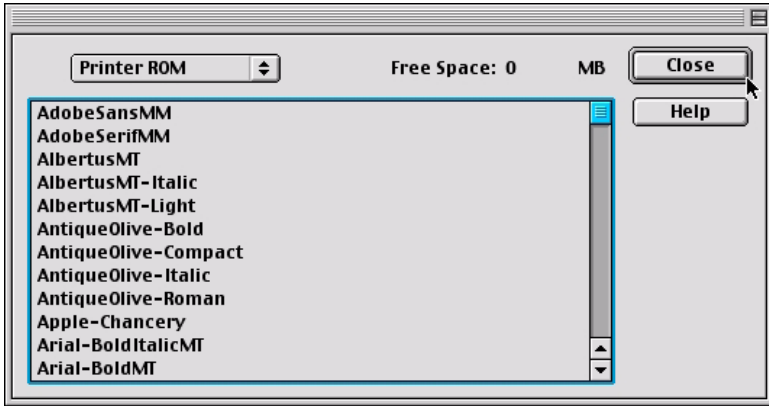
1. To identify the fonts already loaded into the printer, select **Display Font List** from the **Utilities** menu.

2. Press **Close** to return to the main screen.

Initialise Disk

Initialise Printer Hard Disk:

☑ Disk #0

☐ Disk #1

☐ Disk #2

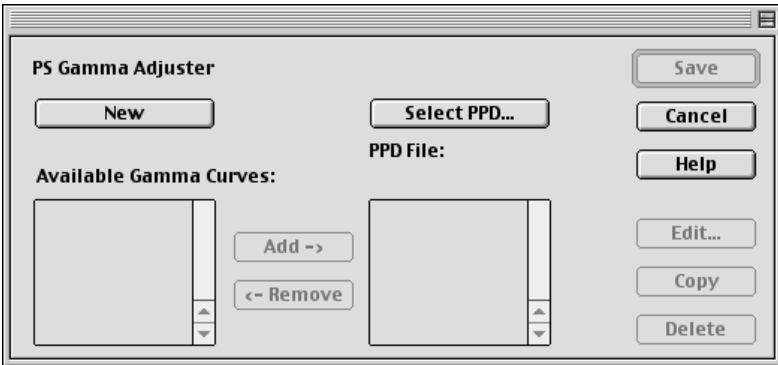| Help	Cancel	Initialise...

This utility will erase the hard disk of the printer and cause it to rebuild the directories.

1. Select the Disk to erase and click the button to execute. This action, once executed cannot be undone.

Substitute Fonts

This function is not supported for a non-kanji printer.

PS Gamma Adjuster

This option allows adjusting the gamma output, or toner density, when printing from the printer. The Gamma Curve profile is sent to the printer with the print job.

1. Because Gamma Curve profiles are tied to the displayed PPD file, select the correct PPD file before proceeding.

2. To add an available Gamma Curve profile, highlight the desired profile and press the **Add** button.

3. To remove a Gamma Curve profile from the PPD column, press the **Delete** button, NOT the **Remove** button. Only use the **Remove** button if you had edited (using the **Edit** button) the profile and wished to store it in the **Available Gamma Curves** column.

Create/Edit a New Gamma Curve Profile
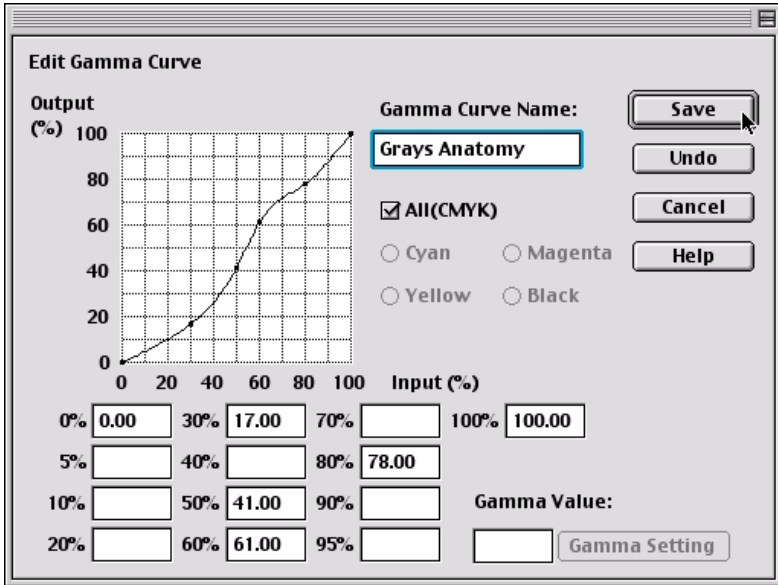
1. To create a new Gamma Curve, press the **New** button. To edit, highlight the profile and press the **Edit** button.

2. Select either **All** or an individual color (deselect **All** first). To modify a curve, click on a point on the curve - the drag point - and drag it to change the shape of the curve. Or if known, enter the values in the fields below.

3. Once the configuration is completed, name and press the save button to save the profile.

4. Remember, the Gamma Curve profile is tied to the displayed PPD file. To gain access to the Gamma Curve profile, the PPD file must be selected in the printer setup.
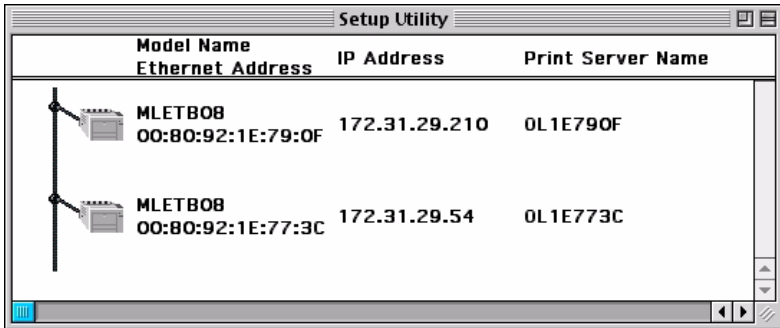
Admin Setup Utility

This utility allows adjusting network options for a printer.

<div style="border:2px solid red">

WARNING

This utility is meant for Network Administrators only. Do not attempt to use this utility if you are not an Administrator.

</div>

Open Setup Utility

1. Open the program by accessing **Local Hard Drive** → **OKI Tools** → **Setup Utility**. The utility will automatically search the network for available printers and present the results.

Setup Utility		
Model Name / Ethernet Address	**IP Address**	**Print Server Name**
MLETBO8 00:80:92:1E:79:OF	172.31.29.210	OL1E79OF
MLETBO8 00:80:92:1E:77:3C	172.31.29.54	OL1E773C

Printer Access

1. Highlight with your mouse the printer with which you wish to work. Once selected, the options from the Menu bar become available.

2. The tables below describe briefly the functions available for this utility.

File Menu

Menu Item	Value	Description
OKI DEVICE SEARCH	EXECUTE	Finds and downloads the latest settings from attached network printers.
EXIT	EXECUTE	Exits the program.

Status Menu

Menu Item	Value	Description
PRINTER STATUS	OPENS STATUS WINDOW	Allows monitoring of selected printer.
SYSTEM STATUS	OPENS STATUS WINDOW	Indicates the network status and protocols utilized.

Setup Menu

Menu Item	Value	Description
OKI DEVICE SETUP	OPENS SETUP WINDOW	Allows changing network parameters for selected printer.
RESET	OPENS RESET WINDOW	Will reset the selected printer.
TEST PRINT	Opens Test Print Window	Will perform a test print on selected printer.
IP ADDRESS SETUP....	Opens IP Window	To setup an IP address if NOT already assigned for selected printer.

Option Menu

Menu Item	Value	Description
ENVIRONMENT SETUP	OPENS WINDOW	Allows Time Out and Broadcast assignment.

Mac OS 10.1 and 10.2 Utilities

Important!

All Utilities on the installation CD are unavailable for Mac OS 10.1 and 10.2, and will only run on Mac Classic OS.